Lectures ON THE PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

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By C. E. BROWN-SÉQUARD,

M.D., F.R.S., F.R.C.P. LOND., ETC.

LECTURE II.—PART III.

ON PARALYSIS LIMITED TO A LIMB OR TO SOME MUSCLES.

A lesion in any of the various parts of the base of the brain or in the cerebellum can produce paralysis of the arm or of the leg alone — Lesions occupying almost the whole of a hemisphere or many different parts of one side of the brain can produce paralysis of the arm or of the leg alone — Lesions occupying parts in the two sides of the brain can give rise to paralysis of the arm or of the leg alone.

If we now turn our attention to the base of the brain—i.e., to the crura cerebri, the tubercula quadrigemina, the pons Varolii, and the medulla oblongata,—and also to the cerebellum, we find that a paralysis of either the arm or the leg alone can be produced by either of these parts as well as by the other parts of the brain I have spoken of. No doubt those who believe that there is a set of conductors for the movements of the arm, and another for the movements of the leg in the crura cerebri, the pons, and the medulla oblongata, will say that it is very natural that certain lesions in those parts should produce paralysis of the arm, and certain others paralysis of the leg. Certainly this would be very natural and acceptable, if a lesion of a certain part always produced paralysis of the leg, and a lesion of another paralysis of the arm; but it is not so, as we find, for instance, that an injury to, or disease of, one of the parts of one-half of the base of the brain will engender no paralysis at all, or cause hemiplegia, or produce either a brachial paralysis or hemiparaplegia. Not only this difference of effects of the same lesion is what we observe, but we find also that a paralysis of the leg or of the arm alone can be caused by a lesion in most various parts of the base of the brain, and, besides, that a lesion in organs, or parts of organs (such as the cerebellum, the crura cerebelli, the posterior part of the pons Varolii, &c.), that have no share in the transmission of the order of the will to muscles can produce a paralysis limited to the arm or to the leg.

8. *A lesion in any of the various parts of the base of the brain or in the cerebellum may give rise to paralysis of the arm, or of the leg, alone.*—To begin with the upper and front part of the base of the brain (calling so only the crura cerebri, the tubercula quadrigemina, and the parts behind them), I will first mention the following cases. Causit[1] relates a case in which there was a tubercle, the size of a chesnut, located in the right crus cerebri, or rather between it and the tubercula quadrigemina, the patient having had a paralysis chiefly of the left arm. Henoch[2] gives a case of tumour in the left posterior quadrigeminal tubercle (the left testes) having caused paralysis of the right arm and right side of the face. Gendrin[3] has seen a case of complete paralysis of the arm and incomplete paralysis of the leg from a hæmorrhage in the right optic thalamus and crus cerebri. In a case in which the left arm was in a state of complete paralysis, Ferrand[4] found blood effused in the right crus cerebri, extending into the tubercula quadrigemina, the right optic thalamus, the middle lobe, and the right side of the cerebellum. In a case of Mr. F. Mason's[5] there was a slight paralysis of the right arm caused by a clot of blood pressing on the left side of the anterior surface of the pons Varolii. My friend Dr. J. W. Ogle[6] has published a case in which paralysis of the left arm was due to an effusion of blood in the tissue of the pons Varolii and of the neighbouring part of the cerebellum on the right side, and also on the surface of the right cerebral hemisphere. In a case in which there was a tumour pressing on the crus cerebelli, with meningitis, Parent and Martinet[7] found no paralysis except an incomplete one of the right arm. Fuchs,[8] in a case in which there was paralysis of the left arm, found two large tubercles in the pons Varolii. The right arm was alone paralysed in a case of tubercle in the medulla oblongata (seat not clearly mentioned), published by Bayle.[9]

As regards paralysis limited to the leg, in cases of disease of the parts of the brain I have just named, I will say that, to my great surprise, in reading cases of lesion localised in one side of those parts, I have found that a paralysis of the two lower limbs (paraplegia) is more frequently produced than a paralysis limited to one leg only (hemiparaplegia). This applies chiefly to lesions of the cerebellum, and hardly at all to those of the crura cerebri. Besides cases of paraplegia due to disease limited to one side of the base of the brain, there are others in which it is caused by disease occupying parts of the two sides of the brain. It is clear that in these last cases there is a *double hemiparaplegia*. There is *double* then what there is when disease in one half of the brain causes paralysis of one of the lower limbs. In a case of Abercrombie's,[10] a patient, after an injury to the head, had attacks of epilepsy, and became gradually paraplegic. He died in coma, and a firm small tumour was found over the chiasma; the ventricles contained twelve ounces of clear fluid, and the two lobes of the cerebellum were diseased, the left much indurated, the right reduced to a mass of scrofulous suppuration. In a case of Mohr's[11] there was paraplegia apparently caused by or coexisting with a tumour, of a walnut's size, in the vermis inferior of the cerebellum, and a cyst in the right cerebral hemisphere.

I said a moment ago, and I showed with details in the preceding lecture, that a lesion limited to a part of one side of the base of the brain can produce paralysis in the two lower limbs. The reverse is sometimes observed. A lesion in the two sides of either the cerebellum or some part of the base of the brain, can produce paralysis in only one of the lower limbs. In a case of Dr. Latham's[12] there was a soft tumour in both sides of the cerebellum, descending into the spine. Three days before death the left leg of the patient was seized with paralysis.

There are many cases on record of paralysis of one leg from disease limited to one side of the cerebellum or of the crus cerebelli. Serres[13] has given the details of three cases of disease of the cerebellum, in one of its sides, having caused only or chiefly a paralysis of the leg. In one of these cases there was an abscess and softening in the right lobe; in another there was an old apoplectic cyst, in the right lobe also, near the pons Varolii; and, in the third, there was softening of the left lobe and of the crus cerebelli. In a fourth case of Serres',[14] there was a tumour on the right crus cerebelli, and paralysis only of the left leg. Mr. Henry Taylor[15] has recorded a case of wasting (implying paralysis) of the left leg, caused by a large tumour in the lower part of the left lobe (the side of the wasting) of the cerebellum. Constant,[16] in a case in which there was paralysis of the right leg, and at the end general paralysis, found a tubercle in the left half of the pons Varolii, and another in the left crus cerebelli. Bright[17] has given a case of cancer of the pons with paralysis of the right leg. To these cases I may add that remarkable one of transverse paralysis I have mentioned in the preceding lecture, in which Peyrot[18] found that a tumour of the *left* crus cerebelli had produced paralysis of the *left* arm and of the *right* leg.

1 Bulletins de la Société Anatomique (Paris, 1836), vol. xii., p. 123.
2 Quoted by Ladame, loc. cit., p. 57.
3 Quoted in Bibliothèque du Médecin Praticien (1840), vol. ix., p. 61.
4 Mémoires de la Société de Biologie, 1862, p. 30.
5 THE LANCET, vol. i., 1861, p. 361.
6 Transactions of the Pathological Society of London (1852), vol. iv., p. 15.
7 Recherches sur l'Inflammation de l'Arachnoïde (Paris, 1821), p. 452.
8 Quoted by Ladame, loc. cit., p. 246.
9 Recherches sur la Phtisie Pulmonaire, p. 155.
10 Loc. cit., p. 172.
11 Quoted by Ladame, loc. cit., p. 247.
12 Med. and Phys. Journ., July, 1826, quoted by Abercrombie, loc. cit., p. 433.
13 Journal de Physiologie de Magendie, vol. iii., pp. 130, 136, and 139.
14 Quoted in Thèse Inaugurale de Delafaye (Paris, 1872), p. 17.
15 THE LANCET, 1845, vol. ii., p. 205.
16 Gazette Médicale de Paris, 8 Févr., p. 834. Quoted by Ladame, loc. cit., p. 241.
17 Reports of Medical Cases, vol. ii., p. 48.
18 Bulletins de la Société Anatomique, 1834, vol. ix., pp. 4, 66, and 246.

In most of these cases, and also in most of those I have mentioned in which it was the arm alone that was paralysed, it would be impossible to explain the paralysis by the supposition that it is due to a destruction of conductors of the will to muscles.

9. *Lesions occupying almost the whole of a hemisphere or many different parts of one side of the brain may give rise to paralysis of the arm, or of the leg, alone.*—The facts I have to mention under this head almost entirely relate to paralysis of the arm. In a case of abscess occupying almost the whole right hemisphere, Chizeau[19] had seen no paralysis except in the left arm. A very able American physician, Dr. McCready,[20] has recorded a case in which paralysis of the right arm appeared a few days before death in a man who had an abscess occupying almost the whole left hemisphere. Cazauvielh,[21] in a case in which there was atrophy of the three lobes of the right hemisphere (especially of the middle one, which was extremely hard), and great alteration and atrophy of the right corpus striatum and thalamus opticus—found that there was only an incomplete loss of motor power in the left limbs, the arm being chiefly affected. I will now only say about these three cases, and especially about the first two, that if the views of the localisers were right, there should have been a paralysis of the arm and leg, nearly equal in intensity in both limbs. The same thing may be said as regards some of the cases I will now mention. Lélut,[22] in a case in which there was an induration and a kind of apoplectic cicatrix in the lateral, middle, and posterior part of the left hemisphere, and red softening of the upper and outer parts of the left corpus striatum, found that the right arm was alone paralysed. Abercrombie[23] found the left arm completely paralysed, while considerable motion remained in the left leg, the lesions being a depression on the middle part of the right hemisphere, and an extensive mass of white pulp in the whole depth of that hemisphere, besides an enlargement and an obstruction of the basilar artery by firm white matter. In a case of Durand-Fardel's[24] there was paralysis of the right arm, the lesions being the tearing of the left optic thalamus by a clot, the size of a walnut, and softening of the convolutions of the left middle and posterior lobes and of the white substance of those lobes. Jarrin[25] found only paralysis of the left arm in a case in which the arachnoid adhered to the right middle lobe, the white substance of that lobe being softened, while the corpus striatum was pulpy and reddish. In a case in which there was paralysis of the right arm, with atrophy, the right leg being very much less paralysed, Dugès[26] found a great part of the left anterior lobe destroyed and a considerable atrophy of the left corpus striatum. In another case of an observer already named, Durand-Fardel,[27] there was only paralysis of the right arm, the lesions being a gelatiniform, reddish softening with tumefaction of the left corpus striatum, and of many convolutions. It would be very easy to lengthen this list of facts considerably, but I think the cases I have mentioned show sufficiently that lesions extending to a very great part of a whole hemisphere, or coexisting in one of the so-called sensori-motor ganglions, and in the convolutions and medullary substance, can produce paralysis either of the arm alone or of the arm chiefly.

I now pass to cases of paralysis of the leg. In a case of Cazauvielh's[28] there was paralysis and atrophy of the left limbs, but chiefly of the leg, the paralysis having lasted thirty years. An obliterated yellow cyst was found in the middle of the right posterior lobe. The right optic thalamus and cornu ammonis were less developed than those parts on the left side. Bouvier[29] has seen a case in which paralysis of the left leg was associated with the presence of several hydatid cysts in the right optic thalamus, and one under the pia mater against convolutions.

The same conclusion I have already so many times drawn from many different sets of facts flows out forcibly also from the cases of paralysis of either the arm or the leg I have just mentioned—viz., that it is impossible to admit that a loss of function of the part diseased is the cause of the paralysis in those cases.

10. *Lesions occupying parts in the two sides of the brain may give rise to paralysis of the arm, or of the leg, alone.*—The number of cases of that kind as regards the arm is extremely large. I will content myself with a few about each of the principal parts of the brain. As regards the convolutions, especially the frequency of paralysis of the arm, when there is disease in the two sides, is very great. In Rendu's[30] work, and in other treatises or papers on cerebral meningitis, many cases are given in which paralysis of one arm alone was observed, allied with or caused by a morbid state of the surface of the brain or at least of its meninges. I am perfectly aware that an effort has been made by Rendu[31] to show that paralysis in cases of tubercular meningitis is due to lesions of the corpus striatum, but in many cases, some of which are to be found in the valuable paper of that writer, either no mention is made of the state of the corpus striatum, or it is clearly stated that that ganglion was in a normal condition. It is a question yet whether an inflammation of the membranes of the brain is not quite sufficient to produce a paralysis. Already many medical practitioners have considered a meningitis as capable of giving rise to paralysis. I will in the next lecture point out the arguments in favour of that view. Out of many cases of simple or of tubercular meningitis, also of inflammation or softening of the grey matter of the cerebral lobes, in which one of the arms alone has been paralysed, I will mention the following:—A case of Pivent's,[32] in which there was a temporary paralysis of the right arm, and no other lesion than miliary tubercles in the cerebral meninges; a case of Savouret's[33] in which there was paralysis of the right arm, and besides, granular meningitis on the convexity of the hemispheres and in the Sylvian fissures, softening of the central parts of the brain, and at the base a gelatiniform mass, containing pus; two cases of Legendre's[34] in which one hand or one arm was paralysed, the lesions being those of tubercular meningitis, together, in one of the two cases, with softening of the central parts of the brain; two cases of Charpentier's, one of Gibert's, one of Demongeot de Confevron's, all reproduced in Rendu's paper,[35] showing that a paralysis of one arm coexisted with tubercular meningitis; a case seen by Rendu himself,[36] in which there was paralysis of the left arm allied with, if not caused by, tubercular meningitis; an important case of Baillarger's,[37] in which there were two large cysts on the surface of the brain, one on each side, the left one perhaps containing more blood than the other, and paralysis only of the right arm; a case of Millet's,[38] in which there was paralysis of the left arm, with weakness of the right hand, the lesion being an inflammatory softening of the grey matter of the left hemisphere, and softening also of right hemisphere, chiefly of the anterior lobe on the two sides. Lesions in other parts of the brain on the two sides have also caused paralysis of only one arm. Most remarkable in that respect are cases of softening of the two corpora striata. There are three such cases published by Broc,[39] Leuret,[40] and Rostan.[41] In a case of hæmorrhage in both optic thalami, Durand-Fardel[42] found the right arm paralysed. I have already mentioned a case in which a friend of Abercrombie's[43] found paralysis of the left arm, caused

[19] Journal de Médecine de Sédillot, vol. vi., p. 285. Quoted by Lallemand, loc. cit., vol. i., p. 402.
[20] New York Journal of Medicine (September, 1857), p. 234.
[21] Quoted by Lallemand, loc. cit., vol. iii., p. 275.
[22] Lancette Française, vol. iv., p. 300; quoted by Gintrac, loc. cit., vol. viii., p. 332.
[23] Loc. cit., p. 89.
[24] Thèse inaugurale (Paris, 1840), p. 83; quoted by Gintrac, loc. cit., vol. vii., p. 196.
[25] Gazette Médicale de Paris, 1833, p. 835.
[26] Ephémérides Médic. de Montpellier, Mars, 1826, obs. 3; quoted by Lallemand, loc. cit., vol. iii., p. 267.
[27] Traité du Ramollissement du Cerveau, p. 44.
[28] Quoted by Lallemand, loc. cit., vol. iii., p. 238.
[29] Quoted by Leven, Mémoires de la Société de Biologie (1854), p. 109.
[30] Recherches Cliniques et Anatomiques sur les Paralysies liées à la Méningite Tuberculeuse (Paris, 1874).
[31] Loc. cit., pp. 77, 81, 92.
[32] Thèse Inaugurale (1853), p. 62, quoted by Gintrac, loc. cit., vol. viii., p. 27.
[33] Thèse, de Paris (1853), quoted by Gintrac, loc. cit., vol. viii., p. 27.
[34] Recherches sur quelques Maladies de l'Enfance (Paris, 1846), pp. 58, 96.
[35] Loc. cit. pp. 126, 129, 131, 132.
[36] Loc. cit., p. 135.
[37] Quoted by Gintrac, loc. cit., vol. vi., p. 677.
[38] Bulletins de la Société Anatomique, 1842, p. 38.
[39] Appréciation du Progrès de la Physiol. Thèse de Concours (Strasbourg, 1837), p. 44.
[40] Journal des Progrès des Sciences et des Institutions Médicales, vol. xi., p. 167.
[41] Loc. cit., p. 38.
[42] Traité du Ramollissement du Cerveau, p. 190.
[43] Loc. cit., p. 206.

by a clot of blood in the *iter ad quartum ventriculum*. In a case in which there was effusion of blood in many parts of the two sides of the brain, Blain des Cormiers[44] found the left arm paralysed. In an interesting case of Gintrac's[45] there were two lesions; one in the left hemisphere, chiefly in the corpus striatum, which was extremely softened (a reddish pulp); the other in the right side, consisting in a considerable softening of the whole half of the pons Varolii. The left arm was alone paralysed for some time. As regards the leg, the best case I know is one by Bouillaud,[46] who found that at times the left leg was paralysed. There were numerous tubercles in both hemispheres.

In all these cases, although there was a lesion in the two sides of the brain, there was paralysis only in one half of the body, and that paralysis was limited to one arm or to one leg. Is it possible, in presence of such facts, to maintain that paralysis, when it appears in brain disease, depends on the loss of function of the part diseased?

Clinical Lectures
ON
EXCAVATION OF THE LUNG IN PHTHISIS.

Delivered at the Brompton Hospital for Consumption and Diseases of the Chest,

BY R. DOUGLAS POWELL, M.D., F.R.C.P.,
PHYSICIAN TO THE HOSPITAL.

LECTURE II.

The recent cavity—Symptoms and signs recapitulated—Caseous abscess in the lung—Mode of formation and rupture—Case related terminating in cicatrisation—Extension and enlargement of cavities, (a) by fresh solution of tissue, (b) by dilating force of inspiration? (c) by pressure of cough—Treatment of hectic symptoms.

GENTLEMEN,—The principal varieties or conditions of cavity which we have further to consider are:—1. Recent cavities—i.e., cavities yet in course of extension and enlargement. 2. Quiescent and contracting cavities. 3. Secreting cavities. 4. Active or ulcerous cavities.

The recent cavity is as yet growing by the liquefaction of caseous material surrounding it, and forming its walls. The humid crackle becomes larger, and is associated with more and more distinctly cavernous breathing as the cavity develops. The expectoration is abundant, thick, sometimes containing distinct lumps of caseous material. Elastic tissue abounds in the sputa; even vessels and fragments of bronchioles may be recognised there, as shown in the slides under the microscope. (*Vide* Figs. 1 and 2.) Hectic fever and sweatings are very marked, the fever being, as I shall presently point out, more distinctly remittent than before, the temperature often during a part of the day being normal.

It frequently happens that a caseous nodule of considerable size—e.g., as large as a walnut or a filbert—will completely liquefy from the centre, and then discharge into the bronchial tube. We may cut through many such cavities on dividing a lung post mortem, which have as yet no communication with a bronchus, but form, so to speak, purulent cysts or caseous abscesses in the lungs. From the abrupt manner in which the bronchi terminate in such cavities and from the smoothness of the false membrane with which such cavities are lined, they closely resemble, and are sometimes mistaken for, bronchial dilatations. Such cavities may be for a considerable time forming in the lung, accompanied by hectic fever and a very troublesome hard cough, when suddenly there is a considerable escape of fluid expectoration, usually tinged with blood, as though an abscess had burst, and auscultatory signs of a cavity are discovered.

[44] Bulletins de la Société Anat., 1847, p. 306.
[45] Loc. cit., vol. viii. p. 370.
[46] Traité de l'Encéphalite (Paris, 1825), p. 179.

This is a common history of the formation of cavities, usually, however, obscured by the presence of other excavations and consolidations in different stages of formation. For no sign will be yielded by such an accumulation save

FIG. 2.

Elastic tissue and fragment of bronchus (?) obtained from expectoration of patient with active pulmonary softening.—Drawn by Dr. SYDNEY COUPLAND.

slight dulness and feeble or suppressed breathing, until communication with a bronchus is established. In some favourable cases such an abscess—for these are in a sense scrofulous or caseous abscesses—may heal and rapidly contract. There is a patient waiting in the next room whose case I will briefly relate.

CASE 1.—A. W——, a pale, scrofulous-looking girl, has been under my observation at this hospital since March, 1872, when, at the age of fifteen, she first came to me as an out-patient. She had then a somewhat loud cough, which had troubled her all the winter, but there were no other definite symptoms and no discoverable pulmonary signs. Her family history was good, but she had been delicate since an attack of measles in childhood. She got well on ordinary treatment, but returned in October, 1874, and again improved, but was ailing during the winter. In the spring of 1875 her principal complaint was of a painful affection of the left breast; she still had no definite pulmonary signs or symptoms beyond general delicacy and slight cough. In June, however, she had whooping-cough rather severely; and six weeks afterwards she still whooped with the cough, which was attended also with thick difficult expectoration. On now examining her chest again I was somewhat surprised to find dulness with very marked cavernous breathing and some gurgling below the right clavicle, and moist crepitant râles were rather sparsely scattered over the posterior base. Fever and hectic symptoms were now marked. The prognosis appeared grave, and I recommended her to obtain an in-patient's letter. She did not come into the hospital, however, until January; meanwhile she improved as an out-patient. In October the sounds were noted as being quite dry, and on her admission into my ward in January I examined her chest with great care, and did so repeatedly afterwards, but I could never discover more than some harshness and feebleness of breathing at the right apex.

I take it that this was a case of caseous abscess at the right apex, which cleared out and cicatrised. Such cases are, however, unfortunately exceptional; this is the only one of the kind of which I have a definite and certain note. Other similar cases have, however, been reported, and post-mortem observation of cicatrices in the lungs leave little doubt that they occur more frequently than positive clinical experience would indicate; but they are rarely single and uncomplicated, as in this case. One feature in which this case differs from others which I shall show you at a future meeting is in the absence of any marked flattening or displacement of organs.

The way in which a communication takes place between these purulent cysts in the lung and their tributary bronchi, from which they have for a time become shut off, has been recently pointed out by Prof. Rindfleisch. He says that the traction upon the branches of the bronchial tree during inspiration causes a separation, when the softening process is sufficiently advanced, between the root of the softened mass and the bronchus which passes into it. Air is immediately drawn into the rent, and the softened contents of the cavity escape through the bronchus. This specimen, which I removed the other day from a lung undergoing rapid excavation, will serve to illustrate Rindfleisch's ingenious view. You will observe that the termination of the bronchus really projects some one-eighth of an inch into the small cavity, having been undermined by softened matter. Thus the deciduous separation of the bronchus, effected no doubt by the necrotic solution of tissue, aided by inspiratory traction, has taken place *within* the margin of the cavity.

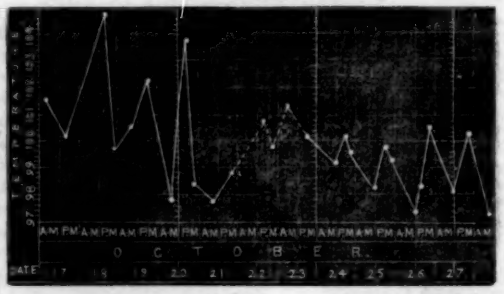
The *extension* and *enlargement* of cavities is usually, and I believe rightly, considered as being effected by the softening down of fresh pulmonary tissue into the original cavity and by the merging of adjacent smaller excavations into one larger one. It is quite needless to illustrate this process, which must obviously be concerned in the production of all trabeculated cavities such as those before you. But Prof. Rindfleisch attaches much importance to the dilating force brought to bear during inspiration upon the interior of the lung as being in phthisis a cause of the formation of bronchial dilatations and of the enlargement of bronchial and pulmonary cavities.

In phthisis we have numerous small bronchi obstructed, the lobules to which they lead being consolidated or collapsed, as the case may be. Now Prof. Rindfleisch maintains that under such conditions the bronchus in front of the obstruction must necessarily become more and more dilated, for the dilating (inspiratory) force, which cannot reach the obstructed parenchyma, must exert all the more pressure upon the interior of the corresponding bronchus. Similarly, in speaking of the enlargement of cavities, he regards the intrusion of air with inspiration as the dilating force before which the soft walls of young cavities yield, compressing and collapsing the lung-tissue around them, and thus extending towards the pleural surface. I hold, however, that this explanation is based upon an insufficient appreciation of the physical conditions present in such cases. It would perfectly apply if inspiration consisted in an inflation of the lungs as we might inflate them through the trachea with bellows. On the contrary, however, the influx of air into the lungs awaits the aspiration dependent upon the expansion of the thoracic cavity. Now, in perfect health, and in vigorous persons, the greatest possible excess of inspiratory force beyond that necessary to expand the healthy lung only amounts to some 2½ in. or 3 in. of mercury. But in phthisical disease at the period of excavation, or in the indurated condition of texture associated with bronchiectasis, the lung is comparatively little extensile, and it has usually contracted more or less firm adhesions to the chest wall over an area considerably beyond the region of excavation. Hence the expansion of the chest wall is restrained, the reserve inspiratory power being inadequate to overcome the increased resistance. It is difficult to conceive therefore how any extra pressure should, under these circumstances, be brought to bear upon the interior of cavities. There is one mode, however, to which Prof. Rindfleisch does not allude, by which cavities whose walls are still yielding may be, and no doubt to a certain extent are, dilated—viz., by air-pressure during cough. Whilst the glottis is closed and the chest compressed by the powerful expiratory muscles in the act of coughing, air is forced into all available reservoirs, and we may frequently observe an intercostal space over a superficial cavity bulge outwards with cough; with inspiration, on the contrary, it deepens. The forcible entry of air into a cavity during cough is also very appreciable by the stethoscope, giving one of the most characteristic signs of cavity. But this mechanism, after all, takes a very subordinate part in increasing the size of cavities, compared with the fresh solution of tissue and coalescence of adjacent cavities to which I have already referred. Whilst cavities are forming and extending the patient encounters certain dangers apart from the progressing destruction of respiratory surface. Hæmoptysis from the rupture of vessels not yet occluded, and absorption of purulent matter giving rise to hectic fever, wasting, and anorexia, these are the principal difficulties referable to the lung condition which we have to contend against at this period of the disease.

I will not now speak of the treatment of hæmoptysis—a symptom which does not, indeed, occur nearly so frequently at this period as one might expect, the tough sheaths of the vessels not readily yielding before the vessels themselves have become occluded. The fever at this period has a peculiar hectic remittent type, the temperature running to a considerable height in the evening or during some usually fixed period of the day—sometimes the morning, sometimes midday,—and then in the next few hours receding; so that our temperature charts, which usually mark only the morning and evening temperatures, show, by abrupt lines and angles, perhaps only the maximum and minimum elevation. These enlarged plates give the result of many observations made by Dr. C. T. Williams on the diurnal fluctuations of temperature in cases of phthisis with actively forming cavities (Med.-Chir. Trans., 1875), and demonstrate in the main the accuracy of the data obtained by less frequent daily observations. This hectic fever is in most cases, at least to some extent, controllable by drugs. Quinine, even in moderate doses of six to ten grains a day, will sometimes have a marked effect. I have not found digitalis at this period to be of any value. Mineral acids or alkalies are sometimes useful as aids to quinine, but have no special virtues. In some striking cases I have seen such benefit follow the administration of salicylate of soda, in twenty-grain doses every three or four hours, that I can recommend it to you as a drug of some efficacy in reducing this peculiar hectic fever. I have here charts showing the effects of the salicylate upon the temperature in two cases.

The first case, that of Thomas H——, you may remember to have examined in this room last Monday. It is a case of advanced phthisis with active formation of cavities in both lungs. The temperatures prior to the commencement of the salicylate indicate considerable fever of a hectic type, attaining its maximum at about the middle of the afternoon. On the afternoon of Oct. 20th the salicylate of soda was ordered in twenty-grain doses (with half a drachm of syrup of lemon and five minims of compound tincture of chloroform in an ounce of water) every four hours. He took the first dose at 10 P.M. (Chart 1.) The next day's

CHART 1.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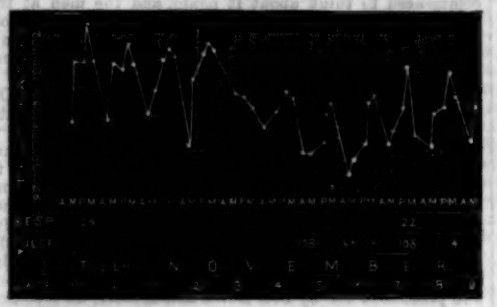
O C T O B E R.
DATE 17 18 19 20 21 22 23 24 25 26 27

temperature was remarkably depressed. On the evening of the 22nd the drug was discontinued, on account of weakness of pulse and headache; but it was resumed on the 24th, and he has continued it steadily since. This case is, I need not say, quite a hopeless one. I merely bring it forward to illustrate the effect of the salicylate of soda in reducing temperature. In this same case the drug has on a previous occasion (two months ago) produced a precisely similar effect.

I also bring down to-day a second case, Alfred W——, in whom you will find a cavity at the right apex of same date, and progressing excavation at the upper portion of the left lung. This patient commenced the salicylate, in twenty-grain doses every four hours, on the morning of Nov. 3rd, with a decided effect upon the temperature (Chart 2), there being a depression of two degrees of fever. On the morning of the 6th the drug was ordered every six hours, and the temperature became raised again somewhat, and the range has continued at this level since, although the

original quantity of the medicine was resumed. Under these circumstances, in another patient, I have found a further increase to thirty grains necessary to bring down the

CHART 2.



temperature again; but in the present case my careful assistant, Dr. Blackader, found the patient somewhat depressed, and so the quantity of the drug was not increased, but some brandy mixture was given alternately with it.

There are further observations needed upon the action of this drug in phthisis.[1] I only bring the above facts forward as pertinent to our present subject.

In cases in which chills occur at certain periods each day, usually between 10 and 12 o'clock, arsenic has been found at this hospital to be useful.

There can be little doubt that the hectic type of fever in phthisis is due to purulent absorption, and it is to those remedies which have an antiseptic action, and which we can administer in sufficient quantity, that we must look to control, and if possible to prevent, the consequences and perhaps the spread of lesions which, having commenced, have a definite course to run. Salicylic acid promises, I think, to be one of these remedies, and the soda salt is an equally efficacious and the least irritating and most convenient form in which to administer it. I doubt the efficacy of inhalations in the treatment of this precise period of phthisis, when the lining walls of the cavities are more or less encrusted by caseous matter. They may partially disinfect the softening products and hasten their removal, but any such effect is balanced, on the other hand, by the increased action of the affected part. Counter-irritation is only now useful to quell pleuritic pains, and should be sparingly employed. Sedative cough mixtures are decidedly harmful, save for the purpose of helping the rest at night. They only tend to encourage the accumulation of the disease-products we are anxious to have expelled.

There is one hint as regards anorexia and other stomach symptoms which is worth bearing in mind. Certain persons, especially young women, from some delicacy or perhaps timidity in realising their disease, refuse to bring out the expectoration which comes into the throat. This is a fertile source of stomach and bowel troubles, and possibly of local tuberculosis.

EMPHYSEMA FOLLOWING PERFORATION OF THE BOWEL.

BY HENRY A. LEDIARD, M.D.ED., F.R.C.S.LOND.,
MEDICAL SUPERINTENDENT TO THE CENTRAL LONDON SICK ASYLUM.

THIS case appears to be of interest from its rarity. I am not aware of a similar one being on record, and for this reason I have thought the following details worthy of publication.

Mary Ann W——, aged twenty-one, a servant, was sent to me on the 30th of September, 1876, as a case of peritonitis. On admission, her statement was that she had caught a violent cold three weeks previously whilst standing at the street door; she was subsequently seized with vomiting and diarrhœa, together with abdominal pain. Prior to this attack her health had always been excellent. On examination, she was found to be pale, weak, and emaciated; temperature 100·6°; abdomen distended, tender, and tympanitic; vomiting occasionally, with constant diarrhœa; stools light-coloured and offensive; tongue foul and sticky; no rash present; no albumen in the urine. Ordered opium internally, and hot stupes to abdomen.

Oct. 5th. — Temperature 101·6°; face flushed; tongue rough and dryish; abdomen distended and acutely painful, especially on the right side; bowels still loose. A small quantity of blood was passed the day after she came in, but none since.

8th. — Temperature 104·2°; increased abdominal pain; tongue dry; pulse 130; diarrhœa continues.

12th.—Temperature 99·1°; seems better; tongue cleaner; motions loose and watery; the abdomen is more swelled on the right side than on the left, and this bulging lies to the right of and a little below the navel, and is tympanitic all over.

13th.—Was in great pain last evening in the abdomen; swelling on the right side of abdomen is more marked; bowels loose. Temperature 99°. Tongue again dry. Some pinching of the features, and return of vomiting. Legs drawn up.

14th.—Temperature 100·1°. Tongue glazed; herpes about nose and lips; bulging to the right of the navel is less tender. Expression tranquil; eyes bright. Pulse 128, thready.

16th.—Abdomen is now very much distended, and there is a large bulging to the right of the umbilicus; more vomiting, but less purging.

19th.—There is some hectic appearance. Breath is sweet; is sweating, and hiccoughs. Pulse 152. Abdomen the same, excepting some hardness towards the right loin below the circumscribed bulging of the abdominal wall. In the evening, 7 P.M., I was called to see her, and found that the neck and chest-wall were emphysematous, and right side of face and cheek puffed out as if the patient was suddenly transformed into a robust person in good health; the neck was crepitant as well as other parts of the thoracic wall, enormously distended, and crackling all over; the air had passed down into the cellular tissue of the right forearm, but not the left; no emphysema of thighs or legs. The abdomen is less distended, and on percussion gives a deep tympanitic note all over, and the same bulging on the right side observed. Eyes bright; breath sweet; tongue is moister. Respiration 40; pulse 152; temperature 102·4°. No urgent pain, but general uneasiness.

20th.—Very little sleep. Looseness continues. Breathing quick. Right eyelid emphysematous. Pupils dilated, and face is flushed. Temperature 100·2°; pulse 152. Hands cold and clammy. Emphysema of abdominal wall just above iliac crests and Poupart's ligament, but not below; emphysema is found to extend round the loins and lower ribs; thoracic wall still enormously bulged out. An old injury to the left elbow with cicatrices probably prevents air passing down this forearm. She complains of thirst, weakness, pain in the back, and difficulty in swallowing, and there is a cough, but no sputa. In the afternoon I used the aspirator to the thoracic wall, and reduced the swelling near the needle, but without any general relief.

21st.—Left side of face is now emphysematous, and the right eye is almost closed from swelling of the lid. Feet and hands cold; is much weaker; no action of bowels for the last twenty-four hours; respiration is laboured; no vomiting, but general uneasiness. There is some diffused redness over the right side of the abdomen, and the veins there are engorged. Breath still has the same sweet smell. In the afternoon the aspirator was used to the swelling on the right side of the navel, and some horribly foul gas came out with a rush, followed by several ounces of yellowish liquid matter, which resembled curded pus, but on examination with the microscope proved to be fæcal. In the evening she was in a sinking condition, with the face extremely swelled and glazed with distension. She died on the following morning.

Autopsy, twelve hours after death.—Cellular tissue of the head, upper extremities, and trunk, very much distended with air. Muscles of the thoracic wall on the right side

[1] A further experience of this drug, although confirming the truth of the above observations so far as they go, yet proves that its effect upon the temperature in cases in which the cause of hectic strongly persists, although at first very marked, is not enduring. Other clinical facts, such as markedly diminished wasting, lessened cough, &c., observed during its administration, are also worthy of note.

very dark-coloured as compared with the left side. On opening the abdomen in the usual manner, the knife, after passing the navel, ran into a fæcal extravasation which lay amongst the cellular tissue and muscles of the abdominal parietes at this point. On further examination a large fæcal accumulation was seen in the cavity of the abdomen occupying the region of the wall which bulged during life, and it was seen that the lower end of the ileum and the head of the colon were so matted together as to shut off from the rest of the abdominal cavity a large space containing feculent matter, which space was limited by adhesions to the abdominal wall, the muscular part of which was here broken down and destroyed. The intestines were not so glossy as usual, and presented some stickiness, but there was no peritonitis. On removing the bowels and washing, a most unwholesome task, four perforations of the ileum, just above its termination, were found; of these two were at a distance of a foot from the valve, one larger one was about six inches, and a fourth two to three inches, above the caput cæcum. In addition there was one large and deep ulcer close to the large perforation, and several more large ulcers in the cæcum; in the ileum were three large patches just above its termination, presenting the "shaved beard appearance." The mesentery at this part of the bowel was sloughy-looking and perforated in several places. The large intestine below the cæcum was free from ulceration, and contained peasoup-like matter, which was also seen in the small gut in good quantity. The mucous membrane was somewhat anæmic, except in the region of the ulcers. Heart healthy. Lungs small, possibly from the abdominal pressure during life; base of the left was solid from pneumonia. Kidneys were congested. Spleen small, weighing three ounces only. Brain not examined.

Remarks.—There can be little doubt that the case was one of typhoid fever from the symptoms presented during life and position of the ulcers found after death, and it is probable that immediately after the first perforation a local only, instead of general, peritonitis was set up, and by this means a space between the bowels and the abdominal wall was shut off, into which feculent matter and flatus were gradually forced; on the muscular coats of the abdominal wall breaking down air escaped into the cellular tissue superficially, and hence over the body. This theory is, I think, sufficient to explain the facts of the case. Emphysema of the abdominal wall and trunk generally may result from the escape of flatus from wounded intestine, according to Mr. Erichsen,[1] but I can find no allusion to emphysema occurring as a sequel to typhoid fever in any work I have consulted.

Details of medicinal and dietetic treatment have been omitted, inasmuch as it was simply directed in order to relieve the symptoms as they arose, and to support the strength of the patient.

Cleveland-street, W.

THREE CASES OF HYDROPHOBIA IN GLASGOW.

SECOND CASE OF HYDROPHOBIA IN THE GLASGOW ROYAL INFIRMARY.

BY M. CHARTERIS, M.D.,

PHYSICIAN TO THE INFIRMARY, AND PROFESSOR OF THE PRACTICE OF MEDICINE IN ANDERSON'S UNIVERSITY.

WILLIAM K——, aged fifty-six, admitted at 12 o'clock, noon, on the 16th October last. The man was perfectly conscious, and voluntarily and without difficulty put us in possession of the following facts, which I give in his own words:—"I was going to my work on the 24th June last, at 6 A.M., when I noticed a dog—half terrier, half lurcher—picking up some garbage on the side of the road. I was always fond of dogs, and I stopped and patted this one on the back, when, without any warning, it turned round and bit me on the hand between the finger and thumb. The wound bled a little, not much; and the dog immediately ran away. I was frightened at the time, and continued to be so until the wound healed, which it did in a week or so afterwards, with no pain or uneasiness. From this time I thought no more about it until I read the report of a man having died of hydrophobia in the Royal Infirmary, when I commenced to think about it again, and the men at the works began to chaff me and tell me I might turn mad too. For ten days after this I did not sleep much, and when I did so had awful dreams. I went off my meat, and sometimes when alone cried and trembled sore."

On the Saturday preceding his admission he came to Dr. Burns and told him that his hand was sore, and that the pain was going up his arm. It was no ordinary pain: it was pricking, stinging, and paroxysmal, and so severe that he begged Dr. Burns to cut the hand off. Dr. Burns to some extent calmed his fears, applied a local application, and sent him home. After a restless night he arose, and, on attempting to wash himself with some water in a basin, he was attacked with a suffocating feeling about the throat; and the dreadful truth thus revealed forced him to exclaim, "Oh, gude wife, I'm gaun mad!" He was seen and prescribed for by Drs. Burns and Mather, an injection of atropine being given. So violent did he become during the Sunday evening, and so much were the neighbours and his family alarmed, that he was shut up in a room by himself, no one going near him.

On admission, his expression was remarkable. It recalled somewhat the idea of a hunted murderer brought to bay, or a man saved by the merest accident from impending death. Terror, fear of everything, pantophobia, was depicted on every feature; and with this there was also a most intense desire to live, and a painful consciousness that this was impossible. A suspicious dread of even the most simple things was shown by his resistance to our efforts to undress him. Then on its being explained to him that it was for his good he readily assented. On his being put to bed, for the sake of experiment Dr. Mather took a basin containing water behind the door, and, lifting up some in a ladle, he allowed it to fall with a splash. The man was lying comparatively quiet, but on hearing this he started up, and cried, "Oh God, that water! that water! save me! save me!" This was followed by a long, deep, sobbing inspiration. The saliva accumulated about the angles of the mouth, and was expectorated with great difficulty and accompanied with a peculiar hawking sound. His tongue was moist, and coated with a white fur, except at the tip and edges, where it was clean. He was perfectly conscious, and expressed much regret that he could not assist our efforts to do him good. Someone having said "If he could but drink something," he turned round, and said "Well, I will try." He took the cup containing milk in his hand, and, after looking at it for a few minutes in his extended arm, he at length raised it half way to his lips, half withdrew it again, and then, summoning all the resolution he had to his aid, he threw it with a kind of convulsive effort into his mouth. On doing so, he immediately jumped up, panting for breath, with an awfully scared look, and with the muscles of his pharynx and thorax spasmodically contracted. This lasted for a few moments, and was succeeded by a long sighing inspiration, after which he quieted down. Milk being offered him, he said, "Don't annoy me; don't annoy me. You are criticising me to increase your knowledge—not for my good." Pupils dilated; eyes not bloodshot. Twenty minutes after this he was placed in a chair with hot bricks beneath it, and enveloped in blankets. Perspiration was aroused, but not to any great extent. It being deemed advisable to continue the treatment he had been ordered out of the infirmary, 1-120th of a grain of atropine and 1-6th of a grain of morphia were subcutaneously injected into the right leg, and this was repeated an hour afterwards; also an enema of beef-tea was given. At 2 P.M. he had a slice of bread-and-butter given him, which he took and cautiously ate, and then asked particularly to be left in the room by himself, so that he might have peace and quietness and get a little sleep. "Leave the milk," he said, "and I will try and take it when you are all away." This was done, but shortly afterwards he begged the attendant to come into the room, as he did not like to be alone. Injections of half a grain of morphia were given at 4 o'clock, and again at 8; and these seemed to have the effect of somewhat quieting him. At 6 P.M. milk was again given to him. The thought of the milk did not seem to alarm him, and he seemed painfully to long to take it, for he said his mouth was "dry and

[1] Science and Art of Surgery, vol. i., p. 416, fifth edition.

parched"; but whenever it reached his mouth his courage forsook him, and he put it aside, looking at it wistfully. At 9 P.M. he was in a very excited state, being afraid that all around were conspiring to do him harm, singling out some as being more prominent than others, and begging all to leave him alone to die. He was perfectly conscious, repeatedly telling us how he was to be held when he attempted to take milk, and asking forgiveness because he could assist us so little. He spoke in a breathless manner; his forehead and body were bathed in a cold, clammy sweat; and his irritability or sensitiveness had become extreme, a breath of air, a footfall, or noise in the farthest part of the ward, being sufficient to throw him into convulsive paroxysms. He was now spitting incessantly, and the saliva seemed difficult to expel. With great persuasion he took several pieces of ice, which, however, caused the same sighing breathing and spasm of the muscles of the neck as when water was given, though not to such a marked degree. He had now also two injections of beef-tea, and, at his own suggestion, some milk, which he actually did gulp with difficulty.

Oct. 17th.—7.30 A.M.: The statements made by those who watched him during the night were as follows:—He became more delirious as the morning advanced, and had to be restrained by a strait-jacket. He vomited some yellow, bilious-looking matter, and, with a strange perversity of taste, desired to drink it. He spat incessantly, and seemed to have still greater difficulty in expelling the saliva, which trickled down the angles of his mouth. At this hour (7.30) he was perfectly unconscious, and thoroughly exhausted, only at times muttering something about his wife and daughter. An hour and a half afterwards, when next seen by me, he was rapidly sinking, his eyes were covered with a tenacious film, and his pupils insensible to light. Some liquid brandy given in a spoon, he appeared to snap at the latter, while the contents trickled down his paralysed glottis.

I have only further to add that he passed about two ounces of urine at 6 P.M., which was found distinctly albuminous, and that nitrite of amyl was given to him once or twice; it seemed to relieve him a little. No post-mortem could be obtained.

"In presence of a malady which constantly terminates in death," says Trousseau, "the practitioner's duty consists in boldly trying everything." To my mind the only hope in hydrophobia would be at an early stage bleeding to syncope, and having blood transfused from a healthy human subject in proportion to the quantity lost. I would not hesitate to adopt the treatment if I should be so unfortunate as again to be called to see a case of hydrophobia.

I am indebted to my house-physician, Mr. Atkinson, and Mr. Briggs for the greater portion of this clinical narrative.

(*To be concluded.*)

SUCCESSFUL CASE OF OVARIOTOMY.

By GEORGE CODD, M.R.C.S. &c.

On the 22nd August my assistant, Dr. Murray, was called in to see a woman, S. W——, aged twenty-three, who believed herself pregnant. On examining the tumour, he diagnosed ovarian dropsy; and on calling next day I found that he was correct. The woman, who was much emaciated, very weak, and suffering from shortness of breath, was obliged to repose in a semi-recumbent position; her pulse was quick and very feeble; temperature a little above normal.

I determined to remove the tumour, but, before doing so, considered it advisable to tap the cyst, which accordingly was done on the 28th August, when two-and-a-half gallons of greenish-yellow, highly albuminous fluid were removed. She felt relieved for a few days after this, but the fluid rapidly gathered again, and I determined to operate as soon as she had gained sufficient strength.

On the 25th September, with the room at a temperature of 70° F., after bringing her completely under the influence of chloroform, I made an incision from a little below the umbilicus to about an inch from the pubes. There was no bleeding, as the parietes were very much attenuated. On exposing the tumour I passed my hand round it, breaking down some soft peritoneal adhesions. The usual ovariotomy trocar was then plunged through the solid part of the tumour, and sufficient fluid removed to allow of the tumour being pulled out of the abdominal cavity, when the rest of the fluid was allowed to escape by slitting up the cyst freely. The pedicle was then securely tied with catgut, divided, and returned into the cavity. The woman was then turned on her side, and any fluid that could escape was allowed to do so; the abdomen being supported throughout by one or two of the gentlemen assisting. No sponge or anything of the sort was introduced into the cavity; and to this fact, combined with the very small amount of handling which the intestines received, I partly attribute the entire absence of any inflammatory symptoms in the course of recovery. The weight of the solid part of the tumour was about 10 lb.; and the fluid removed at the time of operation amounted to a gallon and a half.

The woman was very weak at the close of the operation, which lasted about half an hour, but came round a little after removal to bed. During the operation, when the pulse got low, ether was substituted for or mixed with the chloroform. The wound was closed by means of four harelip needles, including the peritoneum, superficial silver-wire sutures being placed between them. Two folded towels were placed on each side, with a strip of lint over the wound, and the whole held firmly in position by means of strips of plaster about four inches wide brought from behind and er ssed in front, in the way one straps an ulcerated leg. Her pulse was 100, and temperature 99·4°, before the operation; after, the pulse was 120, and the temperature 97°. She got a subcutaneous injection of one-third of a grain of morphia shortly after being placed in bed.

For the first night and day she was very sick, pulse 150, thready and weak. She was ordered an injection of brandy and beef-tea, which made a difference in the pulse in a very short time. The catheter was used twice, and a fair quantity of clear urine drawn off; it had been used immediately before the operation also, but no water came away. Champagne and brandy iced was given frequently in small quantities, with the effect of allaying the sickness to an extent. Her bowels acted freely in the morning. Sickness still continued on the second day after the operation, but to a much less degree. Her pulse was 128, temperature 99°. Iced milk was given her, which was retained better than anything else, and which formed her entire support for the first seven days. She got injections of brandy and beef-tea several times during the night and day, which strengthened her a little; the iced brandy and champagne was also given, though in much less quantity. She improved rapidly up to the seventh day, her pulse falling to 100, and the temperature to 98·4°, when the plaster was removed for the first time. On removing the needles I found the wound completely healed, with the exception of a space about a quarter of an inch in length, where there had been a pucker in the skin; there was not the least tension or tenderness on pressure. The silver sutures were left in. Next day (the eighth after the operation) she was not so well, had been sick during the night, but an effervescing mixture and a few grains of grey powder stopped this. After this she gained strength rapidly, and on the fifteenth day after the operation the remaining stitches were removed, and she was allowed to sit up a little, as she had been very anxious to do so for a few days. Two days after she was able to walk from the bed to a chair, and in a few days more was sufficiently recovered to be able to go out for a drive; and on the twenty-eighth day after the operation, through the kindness of Lord Ebury, whose family throughout the progress of the case had been most kind, supplying ice &c., she was enabled to be removed to the Hertfordshire Home at St. Leonard's.

During the operation I had the able assistance of Drs. Brett, Dove, Brodrib, and Murray.

Rickmansworth.

BEQUESTS &C. TO MEDICAL CHARITIES.—The Annual Report of the Southern Hospital, Liverpool, acknowledges the receipt of £20000, under the will of Mr. Roger L. Jones, £5000 under that of Mr. James Houghton, £2000 under that of Mrs. Eliza Alice Cort, and £1000 under that of Mr. John McGowan, and numerous smaller amounts. The Sheffield Public Hospital and Dispensary has received £500 under the will of Mr. Robert Waters of Crookes.

GOA OR ARAROBA POWDER IN RINGWORM.

BY H. RADCLIFFE CROCKER, M.D.,
ASSISTANT MEDICAL OFFICER IN THE SKIN DEPARTMENT, UNIVERSITY COLLEGE HOSPITAL.

IT has been well said that you may judge of the intractability of a disease by the number of remedies proposed for its cure. Ringworm of the scalp is no exception to the truth of this aphorism; for while most of the remedies suggested have a certain amount of success, there are a large proportion of cases which defy treatment often for months, to the disappointment and annoyance of the patient's medical attendant and his friends. Knowing that in India and the Brazils there was a secret remedy which had a high reputation for its success in curing this class of diseases, I determined to put its powers to the test, for which the skin department of this hospital offered abundant opportunity. Known under the various names of Goa powder, Araroba powder, and Poh de Bahia, their identity was first suggested by Dr. Lima, of Bahia, in an article in the *Medical Times and Gazette* for March 6th, 1875; the arguments in favour of their being all drawn from the same geographical source being nearly conclusive, while arguments to the same effect were brought forward by Mr. E. M. Holmes, in the *Pharmaceutical Journal* of April 10th, 1875.

The botanical name of the plant from which it is derived is not known, but it has been referred to different species of Centralobium and Cæsalpinia, growing in Brazil. They all contain the large proportion of eighty per cent. of chrysophanic acid, easily obtained by exhausting the powder with hot benzole, its best solvent, when the acid is evaporated out as a yellow granular powder. Another, more wasteful, method is by sublimation, which yields a comparatively small quantity of yellow moss-like crystals.

The first cases were treated by painting on the patches a saturated solution of chrysophanic acid in benzole, which retains ten grains to the ounce in the cold. Cases of tinea circinata were cured by this in about half-a-dozen applications. Other cases were treated with an ointment consisting of chrysophanic acid, twenty grains; acetic acid, twenty minims; simple ointment, one ounce, according to the formula of Dr. Lima.

In India it is generally used made into a paste with vinegar or lemon-juice, as mentioned by Sir Joseph Fayrer. The powder from which the acid was obtained was supplied by a city firm. After I had treated a few cases in this way I received, through the kindness of Dr. Ringer, a canister of Poh de Bahia, sent direct to him from Bahia by Dr. Paterson. This was used in all subsequent cases made into an ointment of the same formula as that above, the powder itself being employed instead of the chrysophanic acid, which existed in this specimen, according to the analysis of Mr. Gerrard, the hospital dispenser, in the proportion of 82 per cent. In a few cases an ointment of forty grains to the ounce was employed, and in all it was directed to be well rubbed into the patches every night. The presence of the fungus was in all cases established by the microscope before the application was commenced, and frequent microscopic examinations were made in the course of the treatment.

The following are the results obtained:—

Of nine cases of tinea circinata in various parts of the body, as the arms, neck, and face, all were cured in a week or ten days, in some a single application being sufficient. Some of these had had the disease several months, and had had other treatment.

Of tinea tonsurans twenty cases were treated, but the results were by no means so satisfactory; in most of them other remedies had been tried, and the disease had existed for some time. When tinea circinata and tinea tonsurans occurred together in the same case, the ringworm on the body was readily cured. Of the whole twenty, two were cured completely, one in six weeks, the other in two months. In seven there was certainly improvement—that is, where there were several patches some were cured, but in the other patches the hairs were still diseased. The remaining eleven cases were only slightly improved, though the treatment was kept up for at least three months, and even longer.

On the skin it produced some redness and irritation, which was not limited to the point of application, but produced a coppery redness extending some distance beyond, lasting several days, and followed by desquamation; this was especially marked in a case of chloasma, where, though the disease was cured by two applications, so much itching and redness were left that I had to employ lime liniment to relieve it. On the head, where the application was continued for a longer time, the skin was much reddened and tender, so that the children often cried when their heads were washed; moreover, it dyed the hair a dull purplish-brown hue—due, I think, to the action of the alkali of the soap, used to wash their heads, on the chrysophanic acid; a purple colour on the addition of an alkali being one of the characteristic reactions of that substance.

Cod-liver oil and iron were prescribed internally in most of the cases.

On the whole, therefore, we may conclude that while its efficacy as a parasiticide where the body only is affected is established, when the disease is in the scalp it fails, like so many other remedies, not from want of fungus-destroying power, but from the difficulty of bringing it into contact with that fungus when the hairs are deeply implicated. The local irritation produced and the dyeing of the hair are decided disadvantages. Although its success is so partial, I have deemed it worthy of record, as it may save others from expecting too much from this remedy, and induce them to rely mainly on improved hygiene, so as to render the skin a less favourable nidus; while by epilation and the ordinary parasiticides the surface fungus is removed and the disease gradually eradicated.

NEW SPLINT FOR TREATMENT OF T… VERSE FRACTURE OF PATE…

BY W. E. STEAVENSON, M.R…
LATE HOUSE-SURGEON AT ST. BARTHOLOM…

FOR the treatment of a fractured pe… culty, after setting, is to keep the fra… without tilting. To obviate this, in 1… surgeoncy at St. Bartholomew's Ho… splint represented in the adjoining

several cases to my own satisfaction and to the benefit of the patient. Had it not been denied by the highest authorities that bony union is possible, I should have considered it had taken place in one or two cases. Since 1874 the splint has been in constant use in Mr. Holden's wards in St. Bartholomew's Hospital, and I am told with satisfactory results. I therefore feel justified in bringing a description of it before the profession.

The splint, as made by Messrs. Ferguson, of Giltspur-street, consists of a short, solid, wooden splint about fifteen

inches long and seven and a half inches wide, rather heavy and thick, and grooved to receive the leg; the upper end of the groove which comes under the thigh is wider than the lower end, which supports the upper part of the calf; there

is a vertical and lateral slit on each side of the splint, in which are two travelling brass clamps, worked by screws, for keeping in place the two strips of Esmarch's elastic bandage which, crossed brace-like, keep the fragments of the patella in position. The Esmarch's bandage should be about two inches and a half wide. The great advantage of this mode of treatment consists in this fact. There are many arrangements used in treating fractured patellæ which ensure the apposition of the fragments, but by the width of the Esmarch's bandage we are enabled to place nearly half of it on each fragment, thereby keeping it from tilting, the greater half of the width of the bandage pulling it against the opposite fragment by the cross arrangement; we thereby ensure a continual and gentle pressure of the two fragments together with their broken surfaces perfectly vertical. In setting the fracture, some soft substance, such as several folds of lint, is generally placed upon the splint to prevent galling, and it seldom requires readjustment.

Downing College, Cambridge.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—Morgagni *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

CASE OF LEUCOCYTHÆMIA.

(Under the care of Dr. Henry Thompson.)

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On admission: Face pigmented brown; mucous membrane of lips and gums dusky-red. Veins of abdomen large and tortuous; but there is no unequivocal proof of the presence of ascites. Lower limbs œdematous. Inguinal glands immensely enlarged. Dulness in splenic region slopes obliquely forwards and downwards, reaching close to the pubes below, and laterally as far as an inch beyond the median line. The mass underneath is firm to the touch, but not irregular or embossed on the surface; the notches, however, are well pronounced and quite distinctive. There are signs of condensation at the apices of the lungs, with auscultatory evidences seeming to point in the direction of phthisis. A systolic murmur is heard at the aortic cartilage and at the heart's apex, where at times there is a faint but perfectly definite thrill, and along with the thrill a slight, just perceptible prefix to the first sound—a presystolic tone hardly deserving the name of a murmur. His sight is good, and there are no abnormal appearances on the retina. He complains chiefly of cough, sweating, dyspnœa, constipation, and pain with tenderness in the left hypochondrium. Examined under the microscope, a drop of fresh blood shows a vast multitude of white corpuscles occupying a far larger area in the field than the red globules, which are for the most part collected in rouleaux. Ordered five grains of citrate of quinine and iron three times daily, with a cough mixture and an aperient electuary.

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Throughout the case the pulse-rate varied within the limits of 75 and 96, the prevalent average being about 85. The temperature ranged on the whole from 97° to 100°, but the maximum occurred only once, and the range in twenty-four hours never exceeded two degrees. There was no albuminuria from first to last. The flashing from the eyes disappeared in great measure before the date of discharge.

Remarks by Dr. Thompson.—The following appear to be the main points of interest in the case recorded:—

1. For eight weeks prior to admission the phosphorus treatment in the pill form had been tried and found wanting. It is only fair, however, to acknowledge that the quantity of phosphorus taken is unknown.

2. Diarrhœa is said to be common in leucocythæmia, whether it be the mere expression of debility and decay, or owing to characteristic changes in the intestine. In the above case there was no diarrhœa at all, quite the reverse.

3. There was no pyrexia of any moment throughout the whole period of the patient's stay in the hospital.

4. There was no epistaxis from the commencement of the illness to the date of discharge, save on one occasion only, when the loss of blood was insignificant. Blood, however, was once seen in the sputa, whether derived from the mouth, the fauces, or the air-passages.

GOA OR ARAROBA POWDER IN RINGWORM.

BY H. RADCLIFFE CROCKER, M.D.,
ASSISTANT MEDICAL OFFICER IN THE SKIN DEPARTMENT, UNIVERSITY COLLEGE HOSPITAL.

IT has been well said that you may judge of the intractability of a disease by the number of remedies proposed for its cure. Ringworm of the scalp is no exception to the truth of this aphorism; for while most of the remedies suggested have a certain amount of success, there are a large proportion of cases which defy treatment often for months, to the disappointment and annoyance of the patient's medical attendant and his friends. Knowing that in India and the Brazils there was a secret remedy which had a high reputation for its success in curing this class of diseases, I determined to put its powers to the test, for which the skin department of this hospital offered abundant opportunity. Known under the various names of Goa powder, Araroba powder, and Poh de Bahia, their identity was first suggested by Dr. Lima, of Bahia, in an article in the *Medical Times and Gazette* for March 6th, 1875; the arguments in favour of their being all drawn from the same geographical source being nearly conclusive, while arguments to the same effect were brought forward by Mr. E. M. Holmes, in the *Pharmaceutical Journal* of April 10th, 1875.

The botanical name of the plant from which it is derived is not known, but it has been referred to different species of Centralobium and Cæsalpinia, growing in Brazil. They all contain the large proportion of eighty per cent. of chrysophanic acid, easily obtained by exhausting the powder with hot benzole, its best solvent, when the acid is evaporated out as a yellow granular powder. Another, more wasteful, method is by sublimation, which yields a comparatively small quantity of yellow moss-like crystals.

The first cases were treated by painting on the patches a saturated solution of chrysophanic acid in benzole, which retains ten grains to the ounce in the cold. Cases of tinea circinata were cured by this in about half-a-dozen applications. Other cases were treated with an ointment consisting of chrysophanic acid, twenty grains; acetic acid, twenty minims; simple ointment, one ounce, according to the formula of Dr. Lima.

In India it is generally used made into a paste with vinegar or lemon-juice, as mentioned by Sir Joseph Fayrer. The powder from which the acid was obtained was supplied by a city firm. After I had treated a few cases in this way I received, through the kindness of Dr. Ringer, a canister of Poh de Bahia, sent direct to him from Bahia by Dr. Paterson. This was used in all subsequent cases made into an ointment of the same formula as that above, the powder itself being employed instead of the chrysophanic acid, which existed in this specimen, according to the analysis of Mr. Gerrard, the hospital dispenser, in the proportion of 82 per cent. In a few cases an ointment of forty grains to the ounce was employed, and in all it was directed to be well rubbed into the patches every night. The presence of the fungus was in all cases established by the microscope before the application was commenced, and frequent microscopic examinations were made in the course of the treatment.

The following are the results obtained:—

Of nine cases of tinea circinata in various parts of the body, as the arms, neck, and face, all were cured in a week or ten days, in some a single application being sufficient. Some of these had had the disease several months, and had had other treatment.

Of tinea tonsurans twenty cases were treated, but the results were by no means so satisfactory; in most of them other remedies had been tried, and the disease had existed for some time. When tinea circinata and tinea tonsurans occurred together in the same case, the ringworm on the body was readily cured. Of the whole twenty, two were cured completely, one in six weeks, the other in two months. In seven there was certainly improvement—that is, where there were several patches some were cured, but in the other patches the hairs were still diseased. The remaining eleven cases were only slightly improved, though the treatment was kept up for at least three months, and even longer.

On the skin it produced some redness and irritation, which was not limited to the point of application, but produced a coppery redness extending some distance beyond, lasting several days, and followed by desquamation; this was especially marked in a case of chloasma, where, though the disease was cured by two applications, so much itching and redness were left that I had to employ lime liniment to relieve it. On the head, where the application was continued for a longer time, the skin was much reddened and tender, so that the children often cried when their heads were washed; moreover, it dyed the hair a dull purplish-brown hue—due, I think, to the action of the alkali of the soap, used to wash their heads, on the chrysophanic acid; a purple colour on the addition of an alkali being one of the characteristic reactions of that substance.

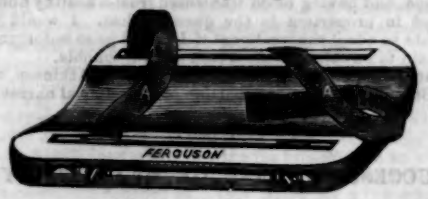
Cod-liver oil and iron were prescribed internally in most of the cases.

On the whole, therefore, we may conclude that while its efficacy as a parasiticide where the body only is affected is established, when the disease is in the scalp it fails, like so many other remedies, not from want of fungus-destroying power, but from the difficulty of bringing it into contact with that fungus when the hairs are deeply implicated. The local irritation produced and the dyeing of the hair are decided disadvantages. Although its success is so partial, I have deemed it worthy of record, as it may save others from expecting too much from this remedy, and induce them to rely mainly on improved hygiene, so as to render the skin a less favourable nidus; while by epilation and the ordinary parasiticides the surface fungus is removed and the disease gradually eradicated.

NEW SPLINT FOR TREATMENT OF TRANSVERSE FRACTURE OF PATELLA.

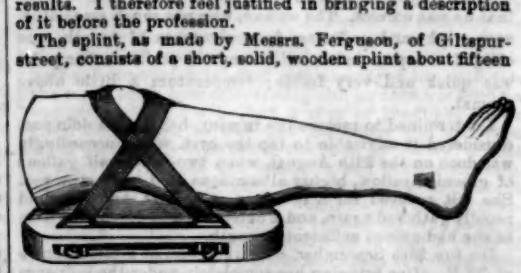
BY W. E. STEAVENSON, M.R.C.S.,
LATE HOUSE-SURGEON AT ST. BARTHOLOMEW'S HOSPITAL.

FOR the treatment of a fractured patella the great difficulty, after setting, is to keep the fragments in apposition without tilting. To obviate this, in 1874, during my house-surgeoncy at St. Bartholomew's Hospital, I devised the splint represented in the adjoining cut, and used it in



several cases to my own satisfaction and to the benefit of the patient. Had it not been denied by the highest authorities that bony union is possible, I should have considered it had taken place in one or two cases. Since 1874 the splint has been in constant use in Mr. Holden's wards in St. Bartholomew's Hospital, and I am told with satisfactory results. I therefore feel justified in bringing a description of it before the profession.

The splint, as made by Messrs. Ferguson, of Giltspur-street, consists of a short, solid, wooden splint about fifteen



inches long and seven and a half inches wide, rather heavy and thick, and grooved to receive the leg; the upper end of the groove which comes under the thigh is wider than the lower end, which supports the upper part of the calf; there

is a vertical and lateral slit on each side of the splint, in which are two travelling brass clamps, worked by screws, for keeping in place the two strips of Esmarch's elastic bandage which, crossed brace-like, keep the fragments of the patella in position. The Esmarch's bandage should be about two inches and a half wide. The great advantage of this mode of treatment consists in this fact. There are many arrangements used in treating fractured patellæ which ensure the apposition of the fragments, but by the width of the Esmarch's bandage we are enabled to place nearly half of it on each fragment, thereby keeping it from tilting, the greater half of the width of the bandage pulling it against the opposite fragment by the cross arrangement; we thereby ensure a continual and gentle pressure of the two fragments together with their broken surfaces perfectly vertical. In setting the fracture, some soft substance, such as several folds of lint, is generally placed upon the splint to prevent galling, and it seldom requires readjustment.

Downing College, Cambridge.

A Mirror
OF
HOSPITAL PRACTICE,
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5. There were physical signs in the chest which, taken along with the general symptoms and viewed apart from the evidences of leucocythæmia, might have warranted the suspicion of phthisis. More probably, enlargement of the bronchial and mediastinal glands, by exercising pressure on the adjoining air-tubes, may have induced morbid changes and given rise to morbid signs which caricatured the manifestations of phthisis, but had no real connexion with that disease. Possibly also there may be true leucocythæmic formations within the lung-tissue itself.

6. There were physical signs which, as a rule, would point strongly to the presence of heart disease. Probably they do point to mischief seated about the mitral orifice. The signs noted at the apex were far too complex and too precise to be the result of mere blood-change or compression of the heart and great vessels through the medium of glandular enlargements, although the murmur over the aorta may well be ascribed to blood-change alone. The fulness and varicosity of the superficial jugular veins have no bearing on the question of heart disease; at least, they do not settle it, if we have fair reason to presume the possible existence of adenomata within the thorax.

7. Among the head symptoms, giddiness is mentioned in the cases reported by Sir William Jenner. In our case deafness and buzzing noises in the ears were prominent symptoms superadded to vertigo. Apparently they were all owing to innutrition and dyscrasia. At one time, however, after the warning given by belladonna, which poisoned the patient so rapidly, it was thought possible that quinine also might have made an undue impression upon him; at any rate, it seemed unfair to urge the medicine when he was suffering from the symptoms of quinine-poisoning. Accordingly the quinine was stopped. No change of any significance ensued. It is clear from the whole history and progress of the case that the head symptoms in question were only members of a family group—the offspring of the disease itself, and were in no degree related to the quinine in respect of origin, duration, or development. If the quinine had any influence at all upon the disease, it must have been influential for good, and not for evil, however slight the amount of good accomplished.

8. Finally may be noticed the discoloration of the skin and the mucous membrane of the lips, the counterpart of the well-known melasma suprarenale. According to Dr. Greenhow, it is more nearly allied to the pigmentation of phthisis.

GREAT NORTHERN HOSPITAL.

CASE OF CUT THROAT; WOUND OF LEFT INTERNAL JUGULAR VEIN TREATED BY LIGATURE; RECOVERY; REMARKS.

(Under the care of Mr. GAY.)

THE notes of the following case were taken by Mr. J. G. Gillam.

W. P——, aged thirty-five, was admitted on the evening of October 24th, under somewhat peculiar circumstances. As one of the surgeons was returning home after seeing his out-patients, his attention was attracted, at a distance of about a quarter of a mile from the hospital, to a crowd collected around a house in which a man was lying with his throat cut. On entering the house, he found the patient in a state of extreme collapse, suffering from an extensive and deep wound, from about an inch below the lobule of the left ear to the opposite side, along the upper border of the thyroid cartilage. Assistance was immediately procured from the hospital. There was abundant hæmorrhage, which was at once arrested by the fingers being pressed into the wound, in the direction of the carotids. It was clear that one of the deep vessels of the neck had been wounded, but owing to bad light, and the instant welling up of the blood the moment the fingers were removed, the vessel could not be secured. The wound was therefore firmly plugged, and the patient conveyed with all speed to the hospital. Mr. Cripps saw him on his arrival. The left sterno-mastoid was found to be completely divided, and a wound inflicted on the left internal jugular vein, about three-fourths of an inch in length, from which violent hæmorrhage ensued as the plug was removed. A finger placed above and another below the seat of the wound in the vessel, checked the bleeding. The vein was then separated from the carotids, completely divided with a scalpel, and tied at both ends with silk ligatures. As the patient began to rally from the extreme state of depression into which he had sunk, hæmorrhage commenced from arteries which hitherto had escaped notice, including the lingual, facial, and superior thyroid. These were secured by ligatures, as well as some twelve smaller vessels which also began to bleed. The head was so arranged as to keep the parts, especially the divided ends of the sterno-mastoid in rest, and in apposition.

The patient made an uninterrupted recovery, and was discharged from hospital on December 1st.

Remarks by Mr. GAY.—In such a wound a considerable number of nerve-branches must have been divided. The descendens and communicans noni, for instance, could not possibly have escaped; and important branches of the cervical plexus, even those which contribute to form the phrenic, must have been in great peril if even they did escape. And yet, with the exception of some symptoms of pain about the shoulder, with weakness in raising the arm, which could only be very indirectly traced to nerve injury, no single defined lesion of motion or sensation remained after the cicatrisation of the wound, and yet this took place by granulation.

The results of nerve injury from accidents and operations are interesting. The division of considerable nerve-branches—such as (1) those we are more familiar with—viz., the ulnar and the peroneal; (2) of smaller branches, filaments, or twigs, near their peripheral termination, as in ordinary operations or wounds, or in skin-shifting; and (3) of sympathetic branches, as by experiment—is followed by curious results. In the first, the parts to which the divided nerve is distributed may suffer permanent or only temporary loss of nerve power, or that power may be partially recovered; in the second, in the course of severe wounds such as that just related, no results attributable to nerve lesion can usually be detected; whilst in skin-shifting the effects of nerve lesion may or may not follow. In some instances, as in those about the neck, when not very extensive, they do not; neither do they usually about the face; but in the shifting of flaps, such as from the forehead for the formation of an artificial nose, they do follow. But in such cases the result is generally in the form of hyperæsthesia: the nose "feels cold"—resulting probably from increased sensibility to the atmosphere; but it resents wounds and other painful injuries as usual; and this often passes away to a considerable degree. In one case, that of a gentleman from America, whom Mr. Gay saw for an incurable ulcer at the base of the great toe, the toe from about the termination of the metatarsal bone was devoid of all sensation. The case is worth brief narration. After making every attempt to cure the ulcer, which was about the size of a sixpence and deep, Mr. Gay cut it fairly out with its tissues, and, after liberating the edges by deep lateral incisions, brought the wound together by sutures. It healed, as did the lateral incisions; but it was replaced subsequently by another ulcer of exactly the same kind and size. The tissues were wholly insensible during the operation. The anæsthesia was occasioned, the patient said, by removal of the toenail twelve years before.

In experiments on a sympathetic branch, definite and well-known results follow; but the like results do not seem to follow division of its peripheral nerve-filaments, nor do analogous results constantly follow division of the nerve-filaments of the ulnar or peroneal in the event of their division at this part of their respective courses.

Now do not these facts show that, whilst in wounds of nerve-branches of a certain size, and at a certain distance from their peripheral termination, certain functional disorders inevitably follow, the like results do not follow division of their ultimate fibrils? In other words, do they not render it probable that there is, in the periphery of the nervous system, a certain zone in which the insularity in point of conduction, which is so marked in every other part, especially as the nerve-branches approach the nerve-centres, does not exist; and that thus the function of one nerve-fibril would instantly be undertaken by another in case of its being interrupted?

The absence of marked brain disorder after deligation of the internal jugular is another interesting fact suggested by this case, and contrasts with the difficulty which inevitably follows occlusion of the deep veins, such as the axillary

or femoral. After this occurrence œdema follows as a rule, and this is the least grave of the consequences which not infrequently take place. The occlusion of small branches, such as the dorsal on the foot, often results in permanent local œdema, from the comparative want of facility on the part of the contributing branches to find collateral accommodation for their blood. The construction of the sinuses appertaining to the venous circulation of the brain renders these currents far less liable to interruption than are those through the tributary veins of the limbs, although their main trunks have, in their construction and relations to immediately surrounding textures, a marked resemblance to the cerebral sinuses.

EDINBURGH ROYAL INFIRMARY.

CASES TREATED BY THE THERMO-CAUTERY.

(Under the care of Mr. ANNANDALE.)

FOR the following notes we are indebted to Dr. Cotterill.

During the last few months Mr. Annandale has employed Dr. Paquelin's thermo-cautery in several cases of importance, and he has convinced himself of its value in surgical practice. A little experience is required in regulating the proper heating of the knife, and the amount of pressure with which it should be used, but when this experience is gained the working of the instrument is perfect. A slightly red heat appears to be the best for dividing the skin and other soft tissues, but if an artery of some size, such as the lingual or facial, requires to be cut through an almost black heat is the best. Should any vessel bleed when divided, a touch with the knife at a black heat usually at once checks the hæmorrhage.

An interesting fact in connexion with the use of the heated knife is, that the resulting wound is painless, and this has been most marked in all the cases which, before the operation, were attended with constant and severe pain. There has been an entire absence of any secondary hæmorrhage in the cases operated upon. The knife at present in use is a little too large for the removal of small epithelial or other growths, but Mr. Annandale has asked Messrs. Collin and Co. of Paris to make for him another platinum knife, smaller and narrower in the blade, which can be worked on the same principle. The following are some of the principal cases in which the instrument has been used.

Excision of the entire Tongue.

The entire tongue has been excised in three cases.

CASE 1.—A man aged fifty-eight was admitted on the 16th of November last for epithelial cancer, which involved the greater part of the tongue. On the 18th the entire organ was removed with the thermo-cautery. The patient made a good recovery, and was dismissed on the 4th of January.

CASE 2.—A man aged sixty-two was admitted on the 2nd of January of this year for a similar condition. The entire tongue was removed in the same way, and the patient was up and going about the ward a week after the operation. His recovery was excellent.

CASE 3.—A man aged forty, admitted September 6th, on account of epithelial cancer, which affected the entire tongue, floor of the mouth, and had also spread to and implicated the lower jaw. In this case the operation was performed partly with the knife and partly with the thermo-cautery, and consisted in the removal of the entire tongue and a considerable portion of the lower jaw. On the 15th of September this patient died from exhaustion.

Scirrhus of the Breast.

Two cases of this disease have been treated with the thermo-cautery; this instrument being used in preference to the knife, because in both instances the growth was adherent to the ribs and intercostal muscles.

CASE 1.—E. S——, aged fifty-four, was admitted on the 9th October last, suffering from an ulcerated scirrhus of the left breast. The growth was firmly adherent for an extent of several inches to the ribs, and gave rise to severe pain. The free removal of the disease with the thermo-cautery completely relieved the pain, and a healthy granulating wound resulted, which gradually cicatrised and contracted until all had healed except a surface the size of a half-crown. The patient remained perfectly free from pain, and in good health, until the 17th December, when an attack of pleurisy, connected with cancerous disease affecting the chest, proved fatal.

CASE 2.—M. S——, aged thirty-three, was admitted at the beginning of the present month on account of a recurring scirrhus. The entire breast had been removed about a year before, but the disease returned six months after in the cicatrix and axillary glands. The mass affecting the cicatrix was adherent to the ribs and intercostal muscles, and was removed with the thermo-cautery. The pectoralis major muscle was then divided with the same instrument, so as thoroughly to expose the diseased glands, which were carefully separated from the axillary vessels with the knife and finger-nail and removed. This patient continues to progress well since the operation.

Cases of Epithelioma.

CASE 1.—A woman, aged sixty-eight, was admitted in October last, suffering from extensive epithelioma of the face. The growth involved both upper and lower lips on the left side, and almost the entire left cheek. The mass was removed with the thermo-cautery on the 4th of October. As a result of the operation a large sore remained, which occupied almost the entire left side of the face, and exposed the corresponding upper and lower jaw. Notwithstanding the severity of the operation the patient's progress afterwards was excellent, and she suffered little or no pain. The large wound gradually contracted, and she was dismissed on the 5th of December, relieved from her disease, but with a considerable gap in the cheek, owing to the deficiency of tissue.

CASE 2.—A man, aged sixty, was admitted in October on account of an epithelial sore affecting one side of the nose. The sore was the size of a shilling, and had been previously removed with the knife, but the disease recurred. The sore and a margin of healthy texture were excised with the thermo-cautery, and the resulting wound readily contracted and healed.

CASE 3.—A woman, aged sixty-five, was admitted at the beginning of this month for an epithelial sore on the scalp. The sore was the size of a two-shilling piece, and caused her much inconvenience and pain. The diseased tissue was removed with the thermo-cautery, and in a few days she was made an out-patient, with a healthy granulating wound which gave her no trouble.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE ordinary meeting of this Society was held on the 23rd inst., Sir James Paget, President, in the chair. The subject of the pathogeny of cancer in general, and of Mammary Cancer in relation to Eczema of the Nipple and Areola in particular, was discussed upon a paper on the latter subject communicated by Mr. Butlin. The discussion was interesting, and was shared in by the President, Mr. Hulke, Mr. Morris, and Dr. Thin. Dr. John Harley contributed a paper "On a case of Sclerema Adultorum," the patient being exhibited in the ante-room.

The following is an abstract of Mr. H. T. BUTLIN'S paper "On the Minute Anatomy of two cases of Carcinoma of the Breast preceded by Eczema of the Nipple." The same conditions were found in these cases as in the two breasts which were the subject of a communication to the Society last session (see Transactions, vol. lix.)—namely, dilatation of the ducts and alteration of their epithelium, with proliferation of the same; infiltration of the surrounding connective tissue with small cells; dilatation of the small ducts and acini, with proliferation of their epithelium. Further, there were in these cases fusion of the acini and ducts thus filled with proliferating epithelium into larger and irregular spaces, escape of the contents or growth of the contents into the surrounding tissues, producing the full formation of carcinoma. With a view to discovering the origin of the

newly-formed epithelium in the ducts and acini, a careful comparison of the characters presented by this epithelium and by the cells in the connective tissue was made. The difference was most marked. No transitional forms could be discovered. No connexion was found between the two sets of cells. It is, therefore, held that the disease is essentially a disease of the epithelium of the mammary gland. The disease is thought to travel from the surface of the nipple and areola through certain of the ducts to the smaller ducts and acini.—Mr. MORRIS inquired whether the cases of mammary cancer supervening upon eczema of the nipple were so very common. From Mr. Butlin's paper in the last volume of the Medico-Chirurgical Transactions he gathered that, at least in Sir James Paget's experience, the coexistence of these affections was frequent. For himself, although during the last five years he had seen 407 cases of cancer in the out-patient department at the Middlesex Hospital, of which number 215 were mammary cancer, he had not met with eczema of the nipple; and in the seven instances of eczema of the nipple, none showed cancer also; nor had he gathered from the subjects of mammary cancer that they had suffered from eczema of the nipple. Last summer there came under his care a woman, forty years of age, who had borne seven children, and suckled them all, and who for five years had suffered from eczema of the nipple. The condition of the breast (of which he showed a drawing) was that of an ulcerated sore in the site of the retracted nipple, and a wide eczematous area, including the areola around it. Some induration existed at the margins of and beneath the ulcer, pointing in favour of epithelioma; there was, moreover, an indurated gland in the axilla. The patient said the disease began as a vesicle on the nipple, then gradually spread. The breast was removed, and the patient made a good recovery; so far as yet examined, he might say that beyond atrophy of the gland substance, and inflammatory infiltration in the region of the ulceration, no morbid change was present, certainly nothing pointing to cancer.—Mr. HULKE was glad to hear the conclusions Mr. Butlin had arrived at with regard to the epithelial origin of cancer, for such views perfectly coincided with his own. When, a few years since, he was more engaged in histological work, he came to entertain no doubt whatever that all varieties of cancer had an epithelial origin, and this, in spite of his previously being imbued with the teaching of Virchow. Careful observation had led him to abandon Virchow's views on this point. For example, in cancer of the skin it was perfectly easy to trace every gradation of transitional development, from the soft rete mucosum cell to that of the epitheliomatous growth in the deeper tissues, combined with enlargement of the sweat, and especially of the sebaceous, glands, which themselves probably serve as further centres for the development of cancer. So again in ichthyosis of the tongue, which he several years ago described at this Society, a condition of overgrowth of the epithelium forming raised white patches occurs, and is limited, it may be for years, to the surface (in the case he first recorded the condition had existed for twenty years), until a change takes place; the epithelial growth dips into the deeper tissues and between the muscular bundles, and epithelioma is established. Certainly, to the unprejudiced observer, there could be no doubt as to cancer being derived from epithelium.—Dr. THIN remarked that the supervention of cancer upon eczema of the nipple was unknown except in London. Dermatologists mostly accept the dictum of Hardy of Paris—that all examples of eczema of the nipple occur in the subjects of itch or in pregnant or suckling women. The cases described by Sir James Paget and Mr. Butlin did not admit of such an etiology, and he (Dr. Thin) thought it desirable that the precise characters of the so-called "eczema" in those cases should be stated, especially as to their intractability to remedies. He would like to know more details of the treatment of the eczematous condition. As a rule, eczema of the breast is not, as in those cases, limited to the nipple and areola, but extends over a larger area. He would not dwell upon the histological characters described by Mr. Butlin; his own views as to the origin of epithelioma he had already detailed before the Society, and he would simply content himself by saying that as a mere matter of observation he had arrived at different conclusions. On the other hand, there was ample support continually being given to such views as those expressed by Mr. Hulke, although such good observers as Cornil and Ranvier hold that carcinoma arises in the connective-tissue spaces, unlike epithelioma, which they separate from true cancer. He himself could not agree with MM. Cornil and Ranvier, but believed epithelial to have the same origin as true cancer. Then the fact of cell-proliferation, although admitted nearly by all, did not seem to have been actually observed; and he thought some unanimity would be arrived at if a clear understanding could be had as to the manner in which epithelium-cells are formed. Here, again, however, there was a difference of opinion, for a few years ago it was held (first by Cleland) that the epithelium in the anterior surface of the cornea was developed from the middle layers of that structure, a view which has given way to an elaborate and not easily understood doctrine propounded by Rollet, who states that this layer of epithelium arises by means of certain granular bodies on the posterior surface of the cornea growing through the corneal layers to the surface. He had never yet seen nor read of actual observations of proliferation of cells, except in the solitary instance of an observation by Stricker upon the cornea, in which that histologist, in studying inflammation in the incised cornea kept in an ambient medium of blood-serum, observed once one of the cells of Descemet's membrane in the process of division. Dr. Thin criticised the use of the term "connective-tissue corpuscle" as misleading, and inquired what was understood by "nucleated protoplasm," which seemed to be used to indicate any collection of granular material or coagulum containing nuclei. It would be far better if histologists would restrict themselves to the term "cell," about which there was something definite.—Sir JOSEPH FAYRER was glad to hear Mr. Hulke's remarks, as they bore out what had gradually been forming in his own mind—viz., that all forms of cancer were closely allied. As instances of this, he might mention the relation between the simplest form of epithelioma of the lip and the enormous growths in the neck resulting from it, and the origin of cancerous disease in the situation of cicatrices from burns.—Mr. GASKOIN remarked that Bazin speaks of an eczematous cancer of the breast.—Sir JAMES PAGET said that he could only speak of the clinical characters of these cases. He had no doubt as to the frequency with which chronic eczema or any chronic irritative disease of the breast and nipple was followed by cancer. He had now seen some fifteen or twenty such cases, and regarded the sequence as so certain that he would venture to prophesy that if any irritative condition were present in the skin of the areola and nipple for a period of three or four years (the patient being of an age favourable to cancer), cancer of the breast would ensue. The cases described by Mr. Butlin were examples of "eczema;" but he had met with two or three instances which might more fitly be termed "psoriasis;" others in which only an excoriated surface was present; but all had the same issue—viz., the development of cancer, not in the skin, but in the substance of the gland. Why the cutaneous affection resisted treatment he could not say, but such was the fact; for, although sometimes the eczematous condition got well for a time, it remained in the long run uncured. These cases illustrated further a larger rule in the etiology of cancer—viz., that any organ that is for a long time the seat of chronic inflammation and imperfect textural changes is prone to the development of cancer. Such was the case in ichthyosis of the tongue, to which Mr. Hulke was the first to draw attention; a condition resembling this was that of white patches on the tongue, of syphilitic or gouty origin, which, after persisting for many years, became the seat of cancer. He thought that more than one-half of the cases of cancer of the tongue arose from some such change in the superficial epithelium. Examples of the same rule were furnished by such cases as those alluded to by Sir J. Fayrer, where old scars on the limbs resulting from burns, which for a long time might be nothing else than unmanageable scars, were eventually starting points for cancer. In like manner, old sinuses, scrofulous disease of the joints, &c., he had seen lead to the formation of cancer. In all these examples there was, no doubt, a marked predisposition to the formation of cancer; of the clinical facts he had no doubt, of the histological details no knowledge, but we had learnt that the superficial ulceration becomes cancerous by a proliferation of the elements beneath the surface.—Mr. BUTLIN, in reply, said that the questions raised by Mr. Morris had been answered by Sir James Paget. It was not epithelioma that followed upon eczema of the nipples, but true schirrus cancer; and he had been

enabled to trace a distinct continuity in the changes on the surface, through the ducts into the deeper gland substance. No doubt it was easier to trace this direct continuity between the superficial and deep changes in cancer of the skin, and he admitted that Cornil and Ranvier held that epithelioma is very different in its origin from scirrhus. There was no other way of accounting for the changes except by the view of epithelial proliferation. The terms "connective-tissue corpuscle" and "nucleated protoplasm" were not more difficult to understand than the term "cell," which had received so many different interpretations in the past ten years. He had used eczema as a collective term for any irritable, often excoriated, condition of the nipple.

The next paper read was on a "Case of slowly advancing Sclerema attended by Cardiac and Gastric Disorders," by Dr. JOHN HARLEY, of which the following is an abstract. The patient has been under the author's observation for nearly five years. He is a man of fair complexion and of rather feeble constitution. He is in his fiftieth year, and a stone-mason by trade. He was obliged to give up work in February, 1872, and applied to the author a month later. Then he was unable to close the hands on account of induration of the subcutaneous tissue. The fingers were of normal size, hard like wood, dusky, very cold, and moist. The induration was marked around the wrists, so as to reduce the movements of the joints to a minimum and render them painful. The rotatory movements of the forearms were reduced to one-half. The induration gradually subsided at a little distance below the elbow. The temperature of the fingers was usually from 3° to 5° only above that of the external air. Touch was but very slightly if at all diminished. From the first there has been a tendency to gangrene at the extreme tips of the fingers. During the progress of the case the face gradually lost power of expression, the mobility of the skin, especially over the malar bones and forehead, decreased, and the subcutaneous tissue became firmer. The affection spread over the neck and upper part of the chest, and the aponeurosis of the external oblique became hard and unyielding. The characteristic features of the disease are best displayed on the neck. The skin in front forms a thin, hard, rigid plane, gathered into vertical ridges, feeling like knotted cords, and complete extension of the head is prevented. The skin is drawn very tightly over the upper part of the chest. The sides and back of the neck are mottled red and white, with what may be regarded as interrupted lines atrophicæ, forming regularly arranged areolæ, measuring from half to three lines in width. The pink areolæ exhibit to the naked eye ramifications of minute bloodvessels, such as are seen in this locality in persons much exposed to the weather; the extremities of these vessels terminate abruptly in the margins of the colourless areolæ. These latter are of ivory-like whiteness and opacity, and usually are absolutely bloodless. The skin of the affected part retains, as far as can be ascertained, its normal degree of sensitiveness. Apart from wasting of the muscles from want of use, and excepting the cutaneous muscles, the muscular system is free from disease. The course of the disease has been marked by increasing debility, and the patient has for the last two years experienced attacks of pain in the cardiac and epigastric region, attended with flatulency and ending in retching and vomiting of sour or bitter fluid. The pulse began to intermit, and at times the intermission was so regular that, with a regular radial pulse of 40 to 42, there were just double the number of cardiac systoles, every other one being too feeble to reach the wrist; and occasionally the secondary beats disappeared from the heart, which then beat in unison with the pulse 40 to 42 times a minute. Some days the pulse is regular, other days very irregular. Associated with the stomach derangement he is liable to attacks of palpitation, and sometimes of extreme faintness. The patient is at present weakly, ill-nourished, and seems anæmic. After slight exertion he "feels faint, as if he had no breath at all," and slight prolapse of the mucous membrane of the bowel, with a little mucous discharge, comes on. He is liable to profuse perspirations. The lungs and kidneys are normal. The author, drawing attention to the condition of the skin of the neck, and to cases in which the subcutaneous tissue of the palm becomes slowly adherent as a depressed, hard, tucked-in cicatrix—a condition which exists in the patient himself,—concludes that the sclerema is merely the direct result of atrophy *pari passu* of the bloodvessels and of the lacunæ and canaliculi of the connective tissue, converting thereby the soft, moist, open, and well-nourished network, into a hard, comparatively dry, close, and ill-nourished tendinous tissue. The atrophy he believes to be due to depression of sympathetic (vaso-motor) nerve power; that the functional disturbance of the heart and stomach is due to the same cause; in a word that the case above described is one of slowly advancing paralysis of the sympathetic system of nerves generally, and that the affection is manifested at the periphery by the atrophy of the connective tissue, and nearer the centre by the grave disturbance of the circulating and digestive functions.

Reviews and Notices of Books.

The Effects of Cross and Self Fertilisation in the Vegetable Kingdom. By CHARLES DARWIN, M.A., F.R.S. London: Murray. 1876.

IN this work we have before us another example of Mr. Darwin's untiring industry, and we may gain from it some conception of the vast collection of orderly-arranged and carefully-tested facts accumulated in the course of many years on which his theories have been built. It is this laborious process of questioning nature which not only enables him to state his views with extreme clearness and precision, but permits him to perceive and admit their weak side, and thus to forestall and disarm adverse criticism. The subject of cross-fertilisation is one that has attracted the attention of comparatively few scientific observers, and but few definite conclusions have been arrived at, though the subject has a wide and important bearing on animals as well as on plants. Mr. Darwin's facts and arguments, therefore, constitute a valuable addition to our knowledge in this direction.

Mr. Darwin starts by saying there is good reason to believe that the flowers of most kinds of plants are constructed so as to be occasionally or habitually cross-fertilised by pollen from another flower, produced either by the same plant or generally by a distinct plant. This is effected in various ways, and the work is intended to demonstrate the nature and importance of the benefits thus derived.

He commenced his researches, it would appear, nearly forty years ago, and adopted the plan of protecting a number of plants of our species from insects, and allowing each plant to be fertilised by its own pollen, whilst a corresponding number of plants were fertilised by pollen taken from another plant. The rapidity of growth and the whole increase of the seeds produced by such fertilisation were carefully compared, the conditions of germination being maintained as nearly alike for both sets of seeds as possible. In some instances these experiments were carried on for ten successive generations with the most remarkable results. In the introductory remarks Mr. Darwin observes that the most important conclusion at which he has arrived is that "the mere act of crossing by itself does no good. The good depends on the individuals which are crossed differing slightly in constitution, owing to their progenitors having been subjected during several generations to slightly different conditions, or to what we call in our ignorance spontaneous variation." And this is quite in accordance with the views we have always entertained and expressed in regard to the intermarriage of cousins in man. There is abundant evidence that the flowers of most plants are constructed so as to be occasionally or habitually cross-fertilised either by the same or by a distinct plant. The means by which this is favoured or ensured are, first, the separation of the sexes, since, although many plants are hermaphrodite, many also, like the hazel, are monœcious, and some also, like the hemp, are dioecious; secondly, the maturity of the male

and female sexual elements at different periods; thirdly, the hetero-styled or dimorphic and trimorphic condition of certain plants; fourthly, many mechanical contrivances; fifthly, the more or less complete inefficiency of a flower's own pollen on the stigma; and, lastly, the prepotency of pollen from any other individual over that from the same plant. Many plants are sterile without insect aid. In one instance, for example, an unprotected plant of melilotus visited by bees produced thirty times more seeds than a protected one. In another instance a hundred flower-heads of Trifolium repens on plants protected by a net did not produce a single seed, whilst 100 heads on plants growing outside, and visited by bees, yielded nearly 3000 seeds.

The first observations here recorded were upon the large convolvulus (Ipomœa purpurea). Ten flowers on one plant were fertilised with pollen from the same flower, and the other flowers on the same plant were crossed with pollen from a distinct plant. The number of seeds produced by the crossed and self-fertilised flowers differed very little. Five pairs of the two sets of seeds were planted on the opposite sides of two pots, and all the remaining seeds, whether or not in a state of germination, were planted on the opposite sides of a third pot, so that the young plants on both sides were here greatly crowded and exposed to very severe competition. It was found that in a given time the average height of the six crossed plants was 86 inches, whilst that of the six self-fertilised plants was only 65·66 inches, so that the height of the crossed plants to the self-fertilised was as 100 : 76. More seeds and heavier seeds were produced by the cross-fertilised plants, and these planted again gave a ratio of 100 : 79 as compared with the self-fertilised plants. Mr. Darwin points out that probably still more marked results would have been obtained if in the case of the cross-fertilised plants an entirely new plant had been taken instead of one belonging to the previous generation. In the third generation the proportion was 100 : 68; in the fourth as 100 : 86; in the fifth as 100 : 75; in the sixth as 100 : 72; in the seventh as 100 : 81; in the eighth as 100 : 85; in the ninth as 100 : 79; and in the tenth as 100 : 54. In the ninth generation it was noticed that most of the flowers on the self-fertilised plants had a tendency to become monstrous. In the course of these experiments one or two singular exceptions were met with. The self-fertilised plants, it may be remarked, varied much less in colour than the cross-fertilised ones. Similar results were obtained with mimulus, the seedlings raised by cross-fertilisation being here also always superior to the self-fertilised. The effects of crossing the self-fertilised plants of the eighth generation with a fresh stock were extremely striking, for the seedlings thus raised were to the self-fertilised of the ninth generation as 100 : 52 in height and as 100 : 3 in fertility! Other plants experimented on were the iberis, lobelia, eschscholtzia, dianthus, sweet-pea, vetch, petunia, tobacco, pimpernel, and primrose. In some of these cases, as in the convolvulus, the self-fertilised plants ran up to the same height as the cross-fertilised ones, or nearly so; but Mr. Darwin is careful to show that when cut down and weighed they were much lighter.

Besides the main point many interesting facts are brought out, or are incidentally touched upon in the course of the work. Mr. Darwin entertains no doubt that the large size and bright colours of flowers serve essentially as guides to insects, and his own and Sir J. Lubbock's observations show that bees readily distinguish colours. Insects are also attracted by the odours emitted by plants. Nägeli affixed artificial flowers to branches, scenting some with essential oils and leaving others unscented, and insects were attracted to the former in an unmistakable manner. Mr. Darwin goes on to say that "not a few flowers are both conspicuous and odoriferous. Of all colours white is the prevailing one, and of white flowers a considerably larger proportion smell sweetly than of any other colour, namely, 14·6 per cent; of red, only 8·2 per cent. are odoriferous. The fact of a large proportion of white flowers smelling sweetly may depend in part on those which are fertilised by moths requiring the double aid of conspicuousness in the dusk and of odour. So great is the economy of nature that most flowers which are fertilised by crepuscular or nocturnal insects emit their odour chiefly or exclusively in the evening." Some plants appear to be adapted for particular kinds of insects only, and to be unattractive to others; thus Mr. Darwin found that Epipactis latifolia, one of the orchids, is visited exclusively by wasps. Again, his observations, and those of his son, Mr. Francis Darwin, show that insects, and especially bees, are capable of profiting by experience, so that, although hive bees usually abstract the nectar from the mouth of the corolla of certain flowers, yet, when humble bees have more rapidly accomplished the same end by biting a piece out of the base of the corolla, the hive bees soon learn and practise that proceeding.

We have said enough to show that the present work by Mr. Darwin is in no way inferior to its predecessors by the same hand in interest, and we feel sure that it will be carefully read by many whose special knowledge and country pursuits enable them at once to appreciate the difficulties under which such experiments are conducted, and the value of the results that have been obtained.

A Course of Practical Histology. By EDWARD A. SCHÄFER, Assistant Professor of Physiology in University College. London: Smith, Elder, and Co. 1877.

We are very much pleased with Mr. Schäfer's book. It is clearly written, well and originally illustrated, and possesses the merit of being both concise and complete. The reader must not look for detailed descriptions of the several tissues, though many, and indeed most of the points of interest are incidentally mentioned; it is rather intended to inform the student how he may make the preparations for himself, than to tell him what he can see when he has made them. There is a short introduction describing the apparatus in ordinary use; an account of the histology of the blood, with the action of reagents upon the red and white corpuscles; the mode of feeding the latter, and the effects of heat and electric shocks upon them follow; and the several tissues are then treated of in order, commencing with the epithelia, and discussing in succession connective-tissue; cartilage; bone; muscular tissue; nervous tissue; the bloodvessels; lymphatics and serous membranes; the skin, hair, and nails; the heart; lungs; mouth and pharynx; the œsophagus and stomach; the small and large intestines; the liver; the spleen and urinary organs; the generative organs; the central nervous system; and the organs of the senses. Lastly, there is an Appendix, in which the mode of effecting measurements under the microscope, of counting the blood-corpuscles, of using microtomes and micro-photographic apparatus are given.

We may best give an idea of the work by showing how one tissue—the muscular, to which Mr. Schäfer has devoted much attention—is treated. The first section treats of the mode of preparation of involuntary muscle; and he recommends that a piece of intestine should be placed in bichromate of potash (1 : 800) solution for forty-eight hours; it is then to be teased out in water stained with a solution of logwood alum, and mounted in glycerine. The arrangement of the fibres is stated in the second section to be best shown by the action of solution of nitrate of silver. The third section, or, as he terms it, preparation, is devoted to

the method of showing the characters of cross-striped or voluntary muscle. The following sections treat of the mode of demonstrating the nuclei, the sarcolemma, the discs and fibrils, the contraction of muscle, the method of examination of muscular tissue by polarised light and when frozen, and, finally, the demonstration of the attachment of muscular fibres to tendon. The entire book is written by one who is thoroughly conversant with his subject, and is quite up to recent advances. We notice, for example, at page 217, a reference to Sankey's method of making sections of and staining the brain, to Creighton's method of preparing the mammary gland, and to Fischer and Dreschfeld's recommendation of eosin as a staining fluid, which were only published in April and October of last year. In conclusion, we may say that any student who has gone fairly over the ground covered by this treatise will find that he has not only gained a mastery over the modern methods of microscopical investigation, but a sound knowledge of the several structures of which the body is composed.

The Anatomy of the Head. With Six Lithographic Plates, representing Frozen Sections of the Head. By THOMAS DWIGHT, Professor of Anatomy at the Medical School of Maine. Boston: Houghton and Co. 1876.

ANATOMY may be taught in two ways: either systematically—each set of organs, as the muscles, nerves, viscera, or vessels, being given separately; or by way of dissection—that is to say, topographically, the various organs being described in their relation to each other. The former gives the more particular, the latter the more general knowledge. Each is complementary to the other, and both must be learnt before an accurate acquaintance with the structure of the body can be obtained. In Dr. Dwight's treatise the topographical plan is followed, and he has given in short compass a very good general idea of the anatomy of the head. It is written in an easy style, though with occasional exceptions. For example, in describing the Eustachian tube (p. 100) he says: "On entering the bone it runs backward and outward to the cavity of the tympanum. The cartilaginous part which occupies the inner side of the membranous part shows great diversity of shape. The upper part, however, is turned over so as to bound the upper part of the outer side which is completed by membrane." The outer side of what? Surely it would have been simpler to say that the cartilage was bent on itself in the form of a roof, the inferior side being completed by membrane. On the next page we notice "azygous" spelt azigous, and "columnar" spelt with two l's. The term frequently employed by Dr. Dwight, "on front," rather grates on our ears; it should either be "in front," or the definite article should be introduced. It is but just to say that the anatomy is generally correct, and that the author seems to have paid more attention than is usual to the results of foreign investigation. Thus, in speaking of the cavity of the mouth, he agrees with Merzger's and Donders' statement that the mouth is kept closed, under ordinary circumstances, in part at least, and perhaps wholly, by atmospheric pressure, and not by muscular action. In fact, Donders has shown, by placing the interior of the mouth in connexion with a manometer, that a negative pressure is constantly exerted, and the same is indicated, as Merzger observes, by allowing the jaw to drop slightly when the cheeks are pressed in by the outer air. Dr. Dwight maintains that the mouth is naturally almost completely filled with the tongue. We fancy, however, that great individual differences exist in this respect, the size of the tongue presenting great variations in different persons. Dr. Dwight's treatise is one that may be read with great advantage by a man who already knows his anatomy, and is desirous of putting his knowledge together. The illustrations are good, but rather too coarsely drawn; a tint or two of colour would aid their comprehension.

The Quarterly Journal of Microscopical Science. Edited by Messrs. LANKESTER, KLEIN, and ARCHER. No. LXV. January, 1877. London: Churchill.

THIS number contains several interesting articles; the first is on the colouring matters of various animals, and especially of deep-sea forms dredged by H.M.S. *Challenger*, by H. N. Moseley. These observations include observations on sponges, zoantharians, echinoderms (some of which were brilliantly coloured), worms, crustacea, and mollusca. A considerable number of new colouring materials must now be added to the list previously known. Mr. Moseley also gives an account of a new species of planarian, the Stylochus pelagicus. Dr. Klein describes a method of preparing the cornea for microscopical observation; Mr. Kidd gives an account and a figure of Schiefferdecker's microtome, which is at once cheap and effective; he also gives a translation of a paper by Engelmann, which appeared in Pflüger's *Archiv*, on Contractility and Double Refraction. The most important article in the number is one by Mr. Holman Peck, on the Minute Structure of the Gills of Lamellibranch Molluscs, which gives the results of a long series of investigations conducted by Mr. Peck, under the superintendence of Mr. Ray Lankester. Mr. Archer supplies a valuable *résumé* of recent contributions to our knowledge of Fresh-water Rhizopoda, referring especially to the Heliozoa and Monothalamia. A short review follows of Prof. Cohn's Researches into the History of Bacteria, which deals with the question of the power of germination of spores and seeds exposed to the temperature of boiling water for a longer or shorter period.

REPORT
OF
The Lancet Commission
ON
THE INFANT MORTALITY IN THE CARLISLE-PLACE ORPHANAGE.

PUBLIC opinion has been agitated in an unwonted manner in consequence of numerous reports concerning the infant mortality which has taken place in a Roman Catholic Convent situated in Carlisle-place, Victoria-street. The broad facts of the case are already well known, and we need therefore only briefly recapitulate the statistics of the convent. These figures were first stated by Dr. Ballard, and, in answer to our inquiries, have since been confirmed by Dr. Macdonald, the medical attendant of the convent. According to these two authorities, there have been altogether 1528 children admitted into this institution during the seventeen years it has been in existence. Out of these children, 489 were infants less than a year old, and only 87 have survived. This proves that the sisters have succeeded in saving 17 out of every 100 infants entrusted to their care! These figures are in themselves undoubtedly appalling, and no one has attempted to contradict them. The sisters belong to the order of St. Vincent de Paul, a French order whose members devote themselves principally to the nursing and education of the young. As many as 10, and sometimes 12, infants are brought to the convent per week. They are the children of the refuse of the population, many inheriting the diseases of their parents, and are generally on the verge of starvation when brought to the sisters. The mother is probably dead, or in prison, or a hopeless drunkard, and the

disconsolate father beseeches the sisters to try and save the little one. In vain they protest that their nursery is already overcrowded. Children have sometimes been left under the table or on the door-step of the convent. "What are we to do?" the Lady Superior exclaimed in answer to our protests, "we cannot leave these children to die in the gutter, and, whatever faults may be found with our nursery, it is in any case a paradise when compared to the pestilential dens in which these unfortunate children have been born, and but for us would be condemned to die." Further, we were assured that if the death-rate of the infants thus taken in was enormous, this was due to the fact that the very worst and most hopeless cases were always preferred. Many were nearly dying from starvation, and it was almost impossible to revive their vital powers. The mortality should, therefore, be compared, not with that of average infants, but with the most forlorn and diseased sections of the population. As a further proof that there was nothing amiss in the convent, it was demonstrated to us that the rate of mortality among the elder children was not at all above the average.

Notwithstanding, however, these important arguments, there are fair grounds for inquiring whether the great mortality of these infants is entirely due to their exceptionally delicate state, or is not partially accelerated by the unsuitable hygienic conditions of the convent nursery? The sisters, we fear, have been prone to compare the accommodation they afforded with the wretched hovels of the poor they visit. They have not realised that they were, in reality, attempting hospital work, and seeking to accomplish a task of so difficult a nature that the authorities of many hospitals would refuse to attempt it. The work has been done in an amateur manner, and the sisters have failed to profit by the admirable examples of sanitary reform which they could have noticed on all sides. Had they attended to these matters, they would never have allowed so unsuitable a building as that which they now occupy to be constructed expressly for them. There are no really good means of ventilation provided in any part of the house; but the room devoted to the infants is perhaps the most unsuitable of the whole establishment. It was at first intended for a kitchen, and still contains a kitchen range, which, we should imagine, gives out at times too much heat for the restricted space. The room measures 23 ft. in length, 10 ft. 6 in. in breadth, and 12 ft. 4 in. in height; so that we have a cubic space of 2978 feet. Thus there are only 496 cubic feet for each of the six infants it contains. When dealing with such desperate and almost hopeless cases, the amount of space allowed should be greater, instead of less, than is usually given in hospitals. At the Hospital for Children in Great Ormond-street 1000 feet are allowed for each child; and we may therefore suggest that the nursery in Carlisle-place should only contain two or at the most three children, instead of six. But with regard to the ventilation of the place, we have still graver objections to make. There is an immense window at the end of this oblong room, but totally unsuited to the purposes of ventilation. It opens as a door, and therefore either admits no air or too much air. Yet the room cannot be thoroughly purified without opening this window; and to aggravate the evil, it looks out in an easterly direction. The infants are thus exposed to violent gusts of wind and damp air coming direct from the outside. There is no possibility of warming the atmosphere before it reaches them; and it must form a trying contrast to the excessive heat of the large kitchen range situated at the foot of their cradles. If, on the other hand, this window is shut, then the ventilation of the nursery depends on the wire gauze which has been substituted for one of the panes of glass. At the other end of the room there are two doors, but these, it will be seen, are scarcely suited for purposes of ventilation. One door leads to a class-room, where some thirty to forty children are at work at their lessons, &c., and consequently corrupting the air; while the other door separates the nursery from a very small room which is reserved for children suffering from infectious diseases! This latter room is as badly ventilated as the nursery itself, and the germs of zymotic disease could easily travel in and out of these twin rooms. Whooping-cough and other similar complaints have already visited this institution, and it is a mercy a general epidemic has not attacked the whole of its inmates.

The infants' nursery is therefore overcrowded, badly ventilated, and exposed to the danger of contagion whenever any child suffering from a zymotic disease is placed in the neighbouring room. Under such circumstances, cleanliness becomes more than ever the imperative duty of all concerned in the management of the asylum. All the measures adopted in the most rigorous hospital should be enforced here; but this is certainly not the case. The infants' cradles and bedding were clean enough when we examined them, though, of course, not free from the smell inseparable from unhealthy children. They have a good supply of clothes given them by lady patronesses. The closets are situated on the staircase. They are trapped, and have a constant water-supply; but are not always exempt from effluvia. A little more flushing, cleanliness, and severity in this respect would be an improvement in a house where patients live and sleep. The same remarks might apply to the sinks. On these points the degree of cleanliness observed in the convent cannot be compared with that of a good hospital.

With regard to the important question of diet, Dr. Macdonald is a strong advocate of cow's milk, though every form of food has been tried, with the exception of asses' milk. A couple of goats were kept especially for the convent children, due care being taken to add more water to this milk as it contains more casein. In compliance with Dr. Ballard's injunctions Liebig's food was given to the infants; but it did not answer; the infants were unable to retain it. Dr. Macdonald, indeed, maintains the common doctrine that no child ought to take starchy food before it is six months' old. Thus when a child is in ordinary health, and this very rarely happens, the cow's milk is diluted with an equal body of water. In cases where there is great sickness lime-water is added, and for very delicate stomachs Dr. Macdonald has often prescribed milk, water, and barley-water, in equal parts. The ordinary feeding bottles are generally half filled and changed every two hours. Each child has two bottles, and the one not in use stands in diluted Condy's fluid, and is subsequently washed with soda. No pap is allowed, and in addition to proclaiming the above regulations, Dr. Macdonald always avoids, if possible, administering medicine to infants. The causes of death, as inscribed in his certificates, are for the most part due to "marasmus" or "want of breast milk." There have been one or two deaths from whooping-cough, one from acute tonsillitis, and one from congenital malformation.

We have not to criticise the condition of the elder children, as this does not come precisely within the scope of the question before the public; but, nevertheless, we must protest that the two dormitories we visited were overcrowded and clumsily ventilated. They reminded us forcibly of a common lodging-house. We happened to examine the bedclothes of one of the cots, and found the blanket anything but clean; it could not have been washed for a long time, and was stained with both urine and fæcal matter, and these marks were not all recent. On our second visit to the convent we again examined this bed and found the same stains, but it was then explained that the child in question was suffering from enlargement of the prostate &c., and that, in fact, this was quite an exceptional case. Nevertheless, as this child slept in a room containing altogether twenty-four children and a nurse, cleanliness should have been maintained, even if clean blankets were necessary every day. It must be borne in mind that even the elder children require special care; a great proportion are consumptive, and an incredible number bear distinct traces of the syphilitic diseases they have inherited from their parents.

To return to the infants, we should state that they are placed under the care of hired nurses, Englishwomen, who themselves have been mothers. The qualification of these nurses is somewhat vague. They previously served in private families as nurses, and the only technical information they possess is derived from the practical experience thus acquired, and the hints or instructions of the medical men they have occasionally seen. They have had no real training, no hospital practice. In fact, the only really qualified assistance and help these unfortunate children ever received was the occasional and gratuituous advice and medica-

ments given by Dr. Macdonald. But even the efforts of this gentleman did not have a fair trial. He urged that the nursery should be enlarged; he begged the sisters not to take any infants in till this was done; but, unable to prevail on this point, he strictly ordered that not more than four children should be admitted, whereas six patients were often placed within the small compass of the nursery.

With all these facts before us we cannot but condemn the conduct of the sisterhood. Their case is a hard one, and we deeply sympathise with their endeavour to do good, and their difficulties in refusing all infants brought to them. Still it would have been preferable to have nursed competently two or three infants, instead of compromising their existence by doubling the number. Without any experience, any real scientific knowledge, these sisters have undertaken a task which the most skilled physicians would look upon as almost hopeless. Their inexperience is best demonstrated by the fact that they have spent £14,000 in the construction of this ill-fated convent, and yet, with all this outlay, the infants have not better accommodation than that which we have described. Surely with such a sum something better than a small kitchen could have been provided for these unfortunate infants. The sisters plead a lack of funds; but what has been spent might have been better spent. A few feet of space deducted from the size of the chapel or waiting-rooms, and devoted to the nursery, might have saved the lives of several human beings. We trust, in conclusion, that when in future private bodies attempt public work of this description they will first study at least the elements of sanitary science.

SEWAGE-DISPOSAL.

II.

IN continuation of our observations of the 13th inst., we proceed to consider the conclusions of the Sewage Committee of the Local Government Board in regular order. By adopting this course we shall be able, perhaps, to show with greatest brevity the peculiar character of the Committee's Report.

Conclusion 1 reads as follows:—

"That the scavenging, sewering, and cleansing of towns are necessary for comfort and health, and that in all cases these operations involve questions of how to remove the refuse of towns in the safest manner, and at the least expense to the ratepayer."

This is in no sense a "conclusion," but simply an assumption, as far as the data given in the Report are concerned. It is an interpolated dictum, which may be received as a sanitary axiom, but which is about as pertinent to the subject of the Report as the dictum that a knowledge of the alphabet is necessary to enable a person to read would be as a preface to a book.

Conclusion 2 has the same sort of irrelevancy to the data contained in the Report, and is, moreover, contradictory with much that is found therein. It runs thus:—

"That the retention for any lengthened period of refuse and excreta in privy cesspits, or in cesspools, or at stables, cowsheds, slaughter-houses, or other places in the midst of towns, must be utterly condemned, and that none of the (so-called) dry earth or pail systems, or improved privies, can be approved other than as palliatives for cesspit-middens, because the excreta is (*sic*) liable to be a nuisance during the period of its retention, and a cause of nuisance in its removal; and, moreover, when removed, leaves the crude sewage, unless otherwise dealt with by filtration through land, to pollute any water-course or river into which sewage may flow. We have no desire, however, to condemn the dry-earth or pail systems for detached houses, or for public institutions in the country, or for villages, provided the system adopted is carefully carried out."

Now, the whole of this conclusion is quite apart from evidence given in the body of the Report, and from the subject of inquiry entrusted to the Committee. So far as it relates to the retention of filth in and about premises in towns, it is a sanitary truism. So far as it touches upon the comparative merits of various systems of dealing for sanitary purposes with such filth, it simply expresses a series of dogmatic opinions, for which the subject of inquiry gives not a shadow of excuse. The manner in which the dry-earth system is coupled with pail systems proves that the reporters have not apprehended the essential difference between the one system and the others. The use of the term "palliative" as descriptive of the advantages of these systems as compared with cesspit-middens, shows that in the few instances of pail systems which came under their observation, as at Halifax, Rochdale, &c. (for of the dry-earth system they do not appear to have seen anything), they have made, as the Report proves, no comparative examination of the question deserving the name. The objection that the pail systems leave undone in respect to crude sewage what they never proposed to do is childish, and the qualified approval of these systems for detached houses and public institutions in the country, and in villages, is simply absurd in face of the deliberate adoption of a pail system by towns such as Manchester, Rochdale, Oldham, &c.

But this is not all; for if we turn to the section of the Report on the clarification of sewage, we find, notwithstanding the above conclusion, that the Committee expresses there (p. xxxii.) the opinion that "the local nuisances" occasioned by the dry-earth, the Goux (pail) system, the Rochdale pail system, and "by any other of the patented systems" known to the Committee, "have been largely increased in proportion to the time of retention of the excreta before removal;" and that these systems involve "the inconvenience suffered by trespass on the privacy of the household." We shall not attempt to reconcile these astounding expressions of opinion with the phraseology of the conclusions. We have taken the trouble to ascertain from our Sanitary Commissioners how far this expression of opinion coincides with their special experience on the subject, and they inform us that in a familiar experience of the towns practising pail systems visited by the Committee, of very many more towns carrying these systems out, and of the people affected by them more or less, this is the first time they have heard "trespass on the privacy of the household" urged as an objection; and as to the assertion made that under any circumstances of retention of excreta in pails the local nuisance was proportionately greater than from excreta in cesspit middens, it simply raises the question whether the Committee made any comparative examination of the pail system and the cesspit systems at all. They suggest that possibly at Rochdale the pail system may have been wholly substituted for the cesspit system when the Committee visited the town, and the means for comparison might not exist there. But this could hardly be said to be the case at Manchester; for within the last three or four weeks it has certainly been practicable there to examine and compare in the same back-entry between two rows of houses the respective powers of nuisance-production of the pail system and the cesspit-midden system. The medical officer of health for Manchester states that it is now a common mode of expressing thankfulness among householders who have had a pail-closet substituted for a cesspit-midden closet in the back-yard to state that they can open the back windows of the house without being "stunk out." On the economical aspects of the question (as stated by the Committee) we shall have a word to say presently.

Conclusions 3 and 4 are as follows:—

"(3) That the sewering of towns and draining of houses must be considered a prime necessity under all conditions and circumstances, so that the subsoil water may be removed in wet districts and may be preserved from pollution, and the waste water may be removed from houses without delay, and that the surfaces and channels of streets, yards, and courts may be preserved clean.

"(4) That most rivers and streams are polluted by a discharge into them of crude sewage, which practice is highly objectionable."

Both these so-called "conclusions" are irrelevant to the inquiry, and, in fact, are not conclusions at all from it; while as to conclusion 4, if the general results of the inquiry lead to one conclusion more definite than another, it appears to be that the pollution of rivers by crude sewage

is certainly less objectionable, whether in a sanitary, an economical, or a sentimental aspect, than the retention of the crude sewage within inhabited areas.

The remaining conclusions relate to the subject proper of the inquiry, and we quote them together:—

"(5) That, as far as we have been able to ascertain, none of the existing modes of treating town sewage by deposition and by chemicals in tanks appear to effect much change beyond the separation of the solids and the clarification of the liquid. That the treatment of sewage in this manner, however, effects a considerable improvement, and, when carried to its greatest perfection, may in some cases be accepted.

"(6) That, as far as our examinations extend, none of the manufactured manures made by manipulating towns' refuse, with or without chemicals, pay the contingent costs of such modes of treatment, neither has any mode of dealing separately with excreta, so as to defray the cost of collection and preparation by a sale of the manure, been brought under our notice.

"(7) That town sewage can best and most cheaply be disposed of and purified by the process of land irrigation for agricultural purposes, where local conditions are favourable to its application, but that the chemical value of sewage is greatly reduced to the farmer by the fact that it must be disposed of day by day throughout the entire year, and that its volume is generally greatest when it is of the least service to the land.

"(8) That land irrigation is not practicable in all cases; and therefore other modes of dealing with sewage must be allowed.

"(9) That towns situated on the sea coast, or on tidal estuaries, may be allowed to turn sewage into the sea or estuary below the line of low water, provided no nuisance is caused; and that such mode of getting rid of sewage may be justified on the score of economy."

The full significance of these conclusions can only be rightly understood by reading along with them the last section of the Report, especially the last two paragraphs. A more pathetic outpouring of bucolic grief we have rarely read. Moreover, the section is in the strangest contrast with the offensive dogmatism of the other parts of the Report. The argument of the section amounts to this:—Agriculture, never specially lucrative, has of late years afforded "very little profits." But such minimised profits as are possible to agriculture will probably be most surely secured by sewage farms, notwithstanding the special difficulties attaching to their working, if certain as yet unachieved conditions can be obtained for them.

In a previous part of the Report the attempts which have been made to supplement wet systems of sewage disposal with so-called dry systems are described as an economical failure. It would now appear from this Report that any system yet devised, except the system which pours its sewage into the nearest stream, stands in the same category, and that there is but little more hope of comparative economic success in a uniform system than in a combined system of sewage disposal. Under these circumstances, the tone taken by the Committee in its gratuitous remarks on systems of excrement disposal other than by water-carriage is as astonishing as unjustifiable, whether regarded in an economical or in a sanitary light. In the latter aspect—the sanitary—the Committee treats excreta as of no more consideration in the question than soap suds (p. 18 *et seq.*) The great northern towns, in dealing with this matter, aim first at removing the known most injurious filth from the sewage, and dealing with it in a manner which will render it less harmful as things go in those towns, and somewhat profitable in the sense of diminishing the cost of removal. This aspect of the question does not appear to have been present to the minds of the Committee at any time. It is idle here to argue the mechanical advantages of water-carriage as compared with land-carriage. This is a local question solely. The dry refuse of a town has to be removed as well as the wet refuse. The systematic removal of this dry refuse is just as important sanitarily as the systematic flowing away of the wet refuse. Whether it is desirable to take away excremental matters with the dry or with the wet is a question which local knowledge and experience can alone determine. Of the sanitary aspects of the two questions there is just as much to be said in favour of the one as of the other. Here again the Committee is wholly astray, and the important relations of the subject to local self-health government are ignored in its discussion of it. The Committee would clearly narrow the question of sewage disposal in towns to a dogmatically taught principle. Its Report proves conclusively that the only reasonable hope we have of ever getting master of the complicated difficulties besetting sewage-disposal is by encouraging local thought and locally conceived action on the subject.

The blunders of the Report as to fact are not less remarkable than the blunder as to the policy of sewage disposal. At p. xxvi. we are told that fermenting sewage is not dangerous to health to the extent its offensiveness might be taken to indicate. At p. xxxi. we are told that "sewage is injurious in proportion to its age and putridity." In several places, indeed generally, sewage passed into the sea or a tidal river is described as "wasted"; in the "conclusions" such a disposal is "justified on the score of economy." In the interpolated remarks on epidemics we read that "recent inquiries show that modern diseases of malignant types, such as *typhus*(!) and cholera, *generate* out of putrid refuse and gross neglect of sanitary works and operations." This written for a great Government Department in the year of grace 1876! There is much more to the same effect in the Report, and we would ask our readers to contrast its conclusions with the conclusions arrived at by the Commission held under Mr. Stansfeld's presidency, at the Society of Arts, on the health and sewage of towns, in June, 1876, given in the Appendix (p. 129). With such a summary as this before it, even a Committee of the Local Government Board might have been expected to show a clearer insight into the subject of sewage-disposal than that manifested in the present Report.

TREATMENT OF ANEURISM.

To the Editor of THE LANCET.

SIR,—The article on aneurism which appears in your issue of the 20th inst. will be read with much interest by all surgeons, as the treatment by the elastic bandage to which it refers promises to be both simple and efficacious. It however contains one statement to which exception may be taken. You say "the elastic bandage is the only method (except injection of hæmostatics) which confessedly aims at the formation of passive blood-clots." It is now more than ten years since Dr. Murray of Newcastle successfully applied the rapid pressure treatment to a case of abdominal aneurism. Mr. C. G. Wheelhouse has since cured a case of inguinal aneurism by the same method, and there are several other cases on record in which the treatment has been adopted. Two years ago I modified this proceeding by cutting down on the subclavian artery and applying temporary compression by means of a pair of artery forceps. In all these cases the object has been to secure the formation of a passive and not an active clot.

The *modus operandi* of this treatment is, I think, not always alike. In some cases, as in that mentioned by you as reported by Dr. Reid, the cure is due to the complete plugging of the aneurism and its proximal opening. Sometimes, however, as in Mr. Wheelhouse's and my own cases, there is a return of pulsation which continues for one or two days. When this occurs, as I stated in my paper on the subject which appeared in the Medico-Chirurgical Transactions, "the coagulation is sudden, and probably commences soon after the application of the pressure. The aneurism is filled by a clot formed out of the blood that was in it at the time the pressure was applied. This clot, like any other in or out of the body, slowly contracts; for a time the walls of the sac contract round it, but occasionally it will shrink more quickly than the walls, and the pressure being removed from the supplying artery, the blood will pass between the clot and the wall, causing a return of pulsation. The blood will, however, have much difficulty in passing through the limited space left in the sac; fibrin will be deposited from it, and the cure completed."

I must apologise for the length of this letter, which I hope you will consider is justified by the importance of the subject.—I am, Sir, your obedient servant,

ARTHUR FERGUSSON MCGILL, F.R.C.S.

Park-square, Leeds, Jan. 20th, 1877.

THE LANCET.

LONDON: SATURDAY, JANUARY 27, 1877.

THE letter of Dr. CURTIS, published in our impression of Jan. 13th, is an important contribution to a discussion which we trust will not be suffered to flag until it has ended in some practical action. Dr. CURTIS's suggestions, however, cover much more than the subject out of which they have immediately arisen. He has in view the formation of an elective, self-governing, sanitary and Poor-law authority for the metropolis, which, as we understand him, shall have special duties assigned to it, in such cases where combined sanitary and Poor-law action on the part of the several respective authorities within the metropolitan area is needed—as, for instance, the provision of hospital accommodation for certain purposes. He would shunt the Local Government Board from any authoritative administrative control over the Poor-law administration of the metropolis, and would make this, as the sanitary administration, a matter wholly of local self-government.

These general considerations involve questions of such great magnitude and difficulty, and are so closely associated with the broader question of the municipal government of the metropolis now looming before Parliament, that they obscure rather than elucidate the pressing practical question which has given rise to Dr. CURTIS's letter, and on which that letter offers very important suggestions. Moreover, the aim and scheme of Poor-law administration differ so essentially from those of sanitary administration that it is difficult to conceive the practicability of an amalgamation of the two administrations for general purposes, unless a fundamental and little likely change occurred in the views of the public and of Parliament on the subject. We can sympathise with the Metropolitan Asylums Board on the irritating relations which appear to exist between them and the Local Government Board; but we are not prepared on the instant to admit that the suggested remedy is the proper one—unless, indeed, it can be shown that the almost prescriptive faculty of muddling which attaches to the Central Poor-law administration is inseparable from it. If, as an ingenious American writer has recently attempted to show, the Colorado beetle has not been altogether an evil in the United States, and its introduction into England would be a blessing in disguise, even an *inspector vastator* may have his beneficent, although as yet unappreciated, uses in metropolitan Poor-law administration. On the other hand, it must be remembered that local sanitary government in the metropolis has hitherto proved as a rule so unsatisfactory that serious question has more than once arisen whether it was not desirable it should be in some way or other controlled by the State. The present discussion, indeed, would not have arisen if local self-government in the metropolis had not proved very largely a sham. Yet the example of the Metropolitan Board of Works has proved that, even within the metropolis, local self-government may be made thoroughly effective when directed to certain specific statutory ends, and Dr. CURTIS's proposition for the formation of some such Board for the sanitary hospital administration of the metropolis is one that deserves and will undoubtedly receive careful consideration.

The great difficulty in this proposition, as Dr. CURTIS puts it, consists in the suggestion of the amalgamation of the local Poor-law and sanitary administrations for the purpose. We believe that we are speaking strictly within the mark when we say that hitherto the dissociation of the Poor-law element from hospital provision and accommodation has been essential to induce the non-pauper classes to seek isolation for infectious diseases. The question of hospital accommodation now under consideration strictly relates to these classes, for as to hospital accommodation for paupers this is already provided for. The action taken by the Metropolitan Asylums Board and the sort of hospital accommodation they have provided, separated from workhouses, and having no appearance of Poor-law regulation about them, it is true, has largely weakened the objection to the use of these hospitals by the non-pauper classes in the metropolis. But were these hospitals made general to the use of the metropolis (which legally, we believe, they cannot be), there would still be a large number of persons among the higher classes of servants, clerks, shop assistants, lodgers, and others, among whom it is in the highest degree desirable that the habit of isolation in infectious sickness should be cultivated, who would not enter them, and for whom at present there is but the Small-pox Hospital on Highgate-hill and the London Fever Hospital to have recourse to. On the other hand, it might be found practicable for a board constituted in the way Dr. CURTIS proposes to make special provision for such cases, which would obviate the difficulty now experienced with them.

The obstacles to be encountered, however, are of a nature which will probably vanish before any serious effort to overcome them, and there is no body in the metropolis so fitted to advise upon them as the Metropolitan Asylums Board. The first step to their solution is for that Board to determine that it will no longer carry out the anomalous quasi-sanitary functions thrust upon it, and be made the scape-goat of the sanitary authorities of the metropolis. The second step is to induce the Board, formally or informally, as its regulations may admit of (either alone or in conference with the sanitary authorities), to consider the whole question of the hospital administration of the metropolis in view of epidemic extension of infectious disease. Dr. CURTIS's letter proves, if such proof were necessary, that the experience of this Board would form the best and safest foundation upon which to construct a general scheme for hospital accommodation for infectious diseases in the metropolis.

WITH his accustomed energy, Dr. RICHARDSON has supplemented his celebrated sketch of a model city with a description of what he would regard as a model town house. The imaginary building he has erected has already been so freely discussed and criticised as to have become quite familiar to us, and even if it should never become a brick-and-mortar reality, its idea will remain a valuable possession to sanitary reformers. The lectures in which this

ideal house was described were pregnant with suggestions, many of them novel, and all deserving of careful consideration by architects and householders. Like many others whose ideas have benefited mankind, Dr. RICHARDSON is occasionally over-zealous in his cause. His facts, moreover, are so mixed with his opinions that they cannot always be separated, and hence his statements come to be regarded, with some truth, as seldom quite accurate, though still more seldom quite erroneous. It must, however, be remembered that pioneers in reform cannot be expected to produce at starting a perfect plan.

The fundamental alterations in house-construction advocated by Dr. RICHARDSON are, firstly, an arched basement open to the external air; secondly, a tower at the back of the house, communicating with each floor by a door, and containing the staircase, closets, lavatories, &c., and a lift; and, thirdly, the placing of the kitchen and servants' dormitories at the top of the house instead of the bottom, beneath a flat asphalted roof, on which a conservatory or winter garden could be erected. Many minor suggestions accompanied these chief ones, some of which we shall notice in turn, but for the moment we confine ourselves to the three chief points.

As to the first of these points there can hardly be a difference of opinion. The underground rooms of a house are almost invariably damp and unhealthy, and the practice of allowing servants to sleep in them deserves severe reprobation. It is also true that in many cases damp air, as well as the smell of cooking, rises from the basement and affects prejudicially the atmosphere of the whole house. We are inclined to think, however, that Dr. RICHARDSON somewhat exaggerates the risk in this latter respect. On the other hand, it was pointed out that the arches could be utilised for a variety of purposes. One of them would, in fact, be the passage which led to the staircase tower at the back, the whole house might be warmed from a furnace erected in another, while the pipes for water, gas, drainage, and refuse might enter the house from the third.

The second point merits even warmer approval. The separation of the staircase, and thereby of the closets, from the body of the house, would isolate each floor, and render it easier to warm and freer from draughts. A good system of ventilation would of course be essential, as the chief ventilation in the upper floors of ordinary houses is effected by the agency of the staircase, but this necessity can only be reckoned as an advantage.

The third point suggests doubts. Placing the kitchen at the top of the house would be an advantage in some respects, and, if the establishment were large, and especially if a lift were provided to lighten servants' labour, it might be the best arrangement. But Dr. RICHARDSON'S scheme is avowedly intended for persons of the middle class, among whom the number of servants is often barely sufficient for the work of the house. The necessity of running downstairs and up again at every knock at the door or tradesman's ring would be a grave difficulty in such households, and would at least have to be "considered in the wages." The main reason for making the change would, moreover, to a great extent be swept away by the proposed alteration in the situation of the staircase. In ordinary houses the smell of the dinner and the damp arising from cooking and washing ascend into the upper rooms by the staircase. But in one of Dr. RICHARDSON'S houses each floor is to be isolated, and such fumes could only ascend by the shaft of the staircase at the back. They would, therefore, pass straight into the garden on the roof, where they would do no harm.

The second of these interesting lectures was devoted to the details of the model house. The best mode of covering walls was discussed first. Dr. RICHARDSON objects to paper because it retains dust, and cannot be washed, and because the paste "decomposes under moisture, and yields its decomposing particles to the air." He prefers paint, but holds that a good and artistic substitute for wall-paper is still needed. Damp on walls and furniture was the subject of much useful comment. It is well to remember that damp walls are chiefly objectionable as leading to damp bedding and clothing. The presence of a fair proportion of aqueous vapour in the air is essential to comfort and well-being, and it would perhaps have been better if the lecturer had pointed this out. The real evil of damp walls is that water evaporates from them when the temperature of the room rises, and is deposited on clothing and bedding when the room cools. Good ventilation and uniform temperature, both properly urged as essentials in a model house, reduce the danger of damp walls to a minimum. The lecturer's remarks on house decoration, though to some extent true, were, it seems to us, a little over-strained. No physician would deny the influence of surrounding objects on nervous subjects especially during sickness. An ugly wall-paper, or one that can readily be distorted into unreal forms, a picture, or even a dress, or a curtain, may become the occasion of a horrible nightmare; but to confine ourselves, from this fear, entirely to simple geometrical patterns in mural decoration would, we think, be an unnecessary and also an ineffectual precaution. Decoration is a matter of good or bad taste, and the taste of one is proverbially not the taste of another.

For lighting purposes Dr. RICHARDSON gives a decided preference to lamps or candles over gas. In this we concur, especially as regards the better kind of mineral oil lamps. The light emitted by these lamps is much whiter than that of gas, and they do not evolve sulphurous acid. But Dr. RICHARDSON objects to gas because it contains six per cent. of carbonic oxide, and remarks that an atmosphere containing one part of the gas in two thousand produces painful symptoms when breathed. But he seems to overlook the fact that carbonic oxide in burning is converted into the comparatively harmless carbonic acid. It is only by the escape of unburnt gas that the carbonic oxide of coal-gas can do any harm, and by his own showing more than sixteen cubic feet of coal-gas must escape into a room of two thousand cubic feet capacity before the proportion of one in tw thousand is reached.

In conclusion, we may remark that the suggestion of a sick-room, detached as far as possible from the rest of the house, and adapted for easy disinfection, is an admirable one. It might easily be adopted in many even of our present houses.

¶ "GENERAL PARALYSIS" is a disease of great obscurity, and there are strong reasons why the attention of the pro-

fession should be asked for its elucidation. It occupies a place in the science of medicine midway between general practice and a specialty, and, as a matter of experience, cannot be studied throughout either by physicians engaged in "mental medicine" or those concerned in the investigation of general pathology. The characteristic symptoms of paralysis affecting the muscular system are wanting in the earlier stages of this malady, while later on mental phenomena lead to the case being placed under the care of an alienist, but too late for the study of indications which might throw useful light on the causation of the disease, and possibly suggest a mode of preventive treatment. The pains bestowed on this affection by practitioners in lunacy have been remarkable, and it may be assumed that, in its mature and final stages, the history of the malady has been very fully and clearly made out. There is still much to be done in the matter of pathology, and it is to be regretted that some system of mutual help cannot be devised by which the rich field of research open to asylum physicians might be more thoroughly investigated. Meanwhile the urgent need, for the sake of science and the sufferers from this almost uniformly fatal disease, is to bespeak the interest of the profession generally, with a view to the recognition of those obscure and commonly unnoticed symptoms which mark the accession of a malady more terrible than tubercular disease, and which threatens to take rank among the affections to which the dwellers in populous districts are peculiarly prone. It must not be supposed that in making this remark we are adventuring an opinion that general paralysis will ultimately be found in any marked degree connected with the condition or customs of life in centres of industry. Whether the malady generally, as happens to be the case in and around London, attacks men more frequently than women; whether it is an affection of early maturity, with a preference for subjects from twenty-four to thirty-five or forty years of age; whether its average duration is, speaking roundly, about three years; and whether arrest of the disease, if not recovery, may, under certain circumstances, be possible, are questions which cannot be answered until the whole subject has been investigated, and cases can be traced from the attack to their final issue at least with the degree of accuracy which has of late years been reached in the study of tubercular phthisis.

What is the first discoverable symptom of general paralysis? Enough is known to hazard the conjecture that some slight paralysis of muscles of the lip, the nose, or the larynx, will be one of the earliest indications. Probably the loss of power may, at the outset, be limited to a few fibres of the muscle or muscles affected, and the sort of impairment which produces tremulous action—unbalanced and therefore unsteady contraction—will be manifested. Inequality of the pupils—perhaps from paralysis of the radiating fibres of the iris on one side—is a familiar but uncertain symptom, of no value except as corroborative. It may occur early, late, or not at all. The catch in the voice produced by paralysis of a muscle or muscles concerned in articulation is a very common sign, sometimes occurring almost alone, and before the mind symptoms; but this, again, cannot be trusted. Such gross indications of locomotive embarrassment as a limp in the gait, from loss of power in the back or limbs, are probably, except in cases setting in with unwonted severity, not to be expected. The whole subject however, is so involved that nothing certain can be said, except that in practical acquaintance with the affection and the means of early diagnosis we are strangely and most grievously in the dark. The sum of the information collected by writers on the disease is exceedingly small, and of that little no inconsiderable portion is confessedly based on conjecture. It cannot be otherwise, seeing that general paralysis is neither under the ken of the specialist, nor a malady which physicians in general practice consider within their province.

The characteristic exaltation of ideas which so frequently occurs as the first manifestation of brain disturbance probably marks a somewhat advanced stage of the disease, although in practice it is generally one of the earliest indications observed. As a rule, of course, it is not until the appearance of mind symptoms the affection falls under the notice of the alienist. The practical question is, what happens before this mental outburst? If the mystery is solved, it must be by the aid of the general practitioner. The early signs of the disease are of a nature which do not, in the present state of our knowledge, point to the issue, or even suggest the existence, of a serious morbid process sapping the springs of life. If attention could be prominently directed to the enigma, and minute tokens of irregular action in the smaller muscles lying about the face and supplied by the cranial nerves studied in detail, new light might be thrown on this interesting and important malady. It is clearly a subject in respect to which facts derived from close observation need to be collected, and we commend the inquiry to those who alone can pursue it—general practitioners,—with whom must lie the investigation and treatment of the disease in its earliest stage, when, *if ever*, it is amenable to remedies, and the manner of its causation is least obscure.

THE arrangements of the Local Government Board for supplying lymph should be called the arrangements of the Board for wasting the supply of lymph. Did not the theory of inefficiency and a desire to save itself trouble explain so much, we should almost say that the Board was acting from sheer malice and perverseness. The letters of our correspondents and public vaccinators show abundantly that they have offered, or could offer, to the Board an almost unlimited quantity of lymph. MR. MACAULAY, of Kibworth, for example, says, "My own district for public vaccination is but a small one, but I would engage to send up fifty fresh-charged tubes and one hundred points next week, and a further supply to follow, if I knew where to send them. In the country we constantly send away arms untouched, simply because we have no need for them, and if the full supply of lymph capable of being secured was stored for the use of others, and distributed as I suggest, we should hear no more of famine." "A Public Vaccinator" says, "*Apropos* of your annotation on the Vaccine Lymph Famine I beg to mention that a short time after I had been appointed public vaccinator for a large district in South Wales I wrote and offered to send the Local Government Board a supply of tubes and points every week, an offer which, perhaps, you will be surprised to hear, they declined." If anything could surprise us in the present administration of sanitary law it would

be to learn that while the practitioners of London, beset on every hand with demands for revaccination, are receiving matter in driblets and in single tubes from the Local Government Board, the Board is refusing almost any amount of it from the public vaccinators of the country. What makes it certain that an abundant supply of lymph could be obtained by the Board is that there are so few centres of infection—in other words, so few places where the small-pox is active, and, consequently, where the demand for revaccination is pressing. It will not do to say that the Board objects to be the purveyor of lymph to the profession. The Board represents a system that first monopolises the lymph and then lets it run to waste. We are most happy to learn that the charge of wasting or withholding lymph rests not upon the head of the public vaccinators but of the Local Government Board, which cannot, let us hope, survive many epidemics such as that now afflicting the metropolis, and demonstrating the utter incompetency of existing sanitary authorities.

Annotations.

"Ne quid nimis."

THE MEDICAL INSPECTION OF SEAMEN.

The fearful storms, and still more fearful destruction to life and property, that have occurred afloat during the past six or eight weeks ought to have reminded the Government of one pledge given last session—viz., to bring in a Bill this year specially relating to the sanitary condition of seamen. The appalling losses that have recently taken place show, if further evidence were needed, how very important it is that none but healthy as well as competent men should be allowed to go to sea in a working capacity, whether it be as seaman, stoker, steward, or steersman. Attention has also been recently directed to the fact, that "look-out" men are often the direct cause of collisions at sea, because they are the subjects of colour-blindness, or are otherwise physically disabled, or so badly clothed that they skulk in the nearest sheltered angle, to the manifest neglect of their duty. We commented on colour-blindness in The Lancet of the 6th instant, as connected with railway accidents, and also on the 30th of September last year, in connexion with casualties afloat; and on the 10th instant, our contemporary the *Shipping Gazette* takes up the subject somewhat warmly; wants to know how "a master is to ascertain who, among his men, have the clearest eyesight?" and says that, although we have got iron ships, iron masts and yards, &c., "iron men have not yet been invented." It is well known that a large proportion of the casualties among steamships occurs as a result of collisions, and that collisions are a form of accident entirely dependent upon the quality of the vital material on board—i.e., upon the look-out men and their officers. It appears to us therefore that the facts recorded about colour-blindness go to prove still more emphatically the importance of instituting a systematic examination of seamen before articles are signed. The *Shipping Gazette* has written in favour of the plan over and over again, and the majority of ship captains, when the subject is discussed, invariably speak in its favour. The Legislature has acknowledged its desirability in a feeble manner by the insertion of a permissive clause into the Merchant Shipping Act, 1867, the clause, however, being so ludicrously a dead letter that few ship-masters are even aware of its existence. It has sometimes been observed that when the demand for sailors exceeded, or was likely to exceed, the supply, the operation of the clause would severely obstruct commercial operations, and prevent ships from going to sea. We believe, however, that this objection has no foundation in fact; and have often observed, in the columns above quoted, that, as regards the northern and north-eastern ports, the supply of sailors exceeds the demand. And, in the hands of an astute inspector, the law would not necessarily operate in excluding all (so to speak) unsound men from work afloat. A medical officer who was enough of a cosmopolite to know his work well would decline a man with phthisis for a Baltic or coasting vessel, but might very fairly accept him for a voyage to Melbourne or China. He would send a sailor recovered from chronic dysentery to the United States or the Mediterranean, but would shut him out of an East Indiaman. A man with heart disease, or ruptured, might be very well fitted for deck work exclusively; and so on. Much of success would depend upon the way in which the inspection was conducted; for, as we have indicated above, no hard-and-fast line can be drawn, and sailors must not be examined by the standard of the laws that regulate life assurance offices. Very few men, in this walk of life, after thirty, are really sound, having regard to all casualties connected with work and climate. But the Board of Trade have already sufficient evidence to show that if ships were enabled to start with moderately sound and healthy men many casualties would be avoided, and the percentage of scurvy in the mercantile marine would still further decrease, because this disease would not find so many subjects specially predisposed to its attacks, on account of being affected with some other serious chronic disorder. We earnestly hope that this important subject will be referred to next month in Her Majesty's speech.

SMALL-POX HOSPITAL IN LIMEHOUSE.

There appears to be such a deeply rooted prejudice amongst the public against the contiguity of small-pox hospitals to dwelling-houses, that we feel sure, were one established on Bagshot Heath or Salisbury Plain, the usual indignation meetings would be held to protest against the measure. Hampstead fought long against the introduction of a hospital for the disease in its midst; and now, after it has been clearly shown that the health of the parish is not in any way affected thereby, the inhabitants are getting accustomed to the buildings, which they no longer dread. It is clear that during an epidemic of small-pox, hospitals for the reception and treatment of cases must be established in localities easily accessible, and the duty thus thrown on the Metropolitan Asylums Board is a difficult and disagreeable one. The action of the Board in securing the premises in Dod-street, Limehouse, has roused a storm in the neighbourhood, which culminated on Saturday in a procession of a large body of the inhabitants to Trafalgar-square, where they were received by the members for the Tower Hamlets. After the delivery of sundry addresses, a resolution was unanimously carried to the effect that the meeting, composed of shopkeepers, manufacturers, and workpeople employed in the immediate neighbourhood where it was intended to establish a small-pox hospital, expressed their indignation at the action of the Asylums and the Local Government Boards in selecting the site in Dod-street, which, if persevered in, would result in several thousands of hard-working men and women being deprived of any means of getting an honest livelihood. In truth, it must be confessed that the selection of this site was not happily inspired. It lies in a densely populated quarter. It has a canal in its rear, which is, as a rule, extremely offensive; a chemical factory close by; a scavenger's yard at the east end of the street; a "colonial meat" factory at the west end; while in the street itself are some large factories employing on the spot nearly two

thousand hands, chiefly women and young people, and perhaps an equal number calling daily for work to take to their homes. And a most valid objection against its adaptability lies in the circumstance that there are no grounds in which the patients could take air and exercise. We do not suppose, however, that the managers are likely to recede at this point, after having taken the place at a rental of about £2000, and expended a nearly equal sum in the work of fitting and furnishing. It becomes a question whether, in establishing a hospital for small-pox, it would not be desirable that a medical commission should inspect the site, and report on the advantages and disadvantages connected therewith. The commission might consist of the respective representatives of the Local Government Board, the Metropolitan Asylums Board, and one delegate from the local authorities and ratepayers.

A PRIVATE DISSECTING-ROOM.

At the Guildhall, on Saturday last, Sir Thomas Gabriel adjudged that Mr. Thomas Cooke's School of Anatomy, in New Bridge-street, was a nuisance, and, under the powers conferred on him by the Nuisance Removal Act, ordered that it must be abated, and not occur again. Mr. Cooke, after having had the case argued on its merits, submitted to the decision of the magistrate, without exercising his right of appeal, and will remove his school in consequence. We had expected such a decision, and although we sympathise with Mr. Cooke—especially as after these proceedings he is sure to meet with considerable difficulty in establishing his school conveniently elsewhere—we cannot see how any other conclusion to the case could have been arrived at. We attach no value to the evidence as to the effect on the health of the inmates of the adjoining premises, inasmuch as this was quite trivial and inconclusive. The emanations from a well-regulated dissecting-room are most insignificant, and are generally, as was apparently the case here, not due to any putrefactive decomposition, but to the antiseptics which are used to prevent this process. We doubt much whether carbolic acid is the best substance that might have been selected for the purpose, as arsenic, corrosive sublimate, and chloride of zinc are quite as efficacious, and have, moreover, the additional advantage of not betraying their use by any objectionable odour. That the health suffers from the proximity of a dissecting-room is a fallacious argument is at once apparent when we consider the large number of anatomical teachers and students who spend a great part of their working day therein. Moreover, in some of the schools connected with the London hospitals the dissecting-rooms are close to other rooms, whose residents do not complain, and are not injuriously affected thereby. In these cases, however, almost perfect ventilation is secured, and no odours are allowed to escape in such a direction as would offend or alarm anyone. That the circumstances attending the working of a school of anatomy are calculated to affect the comfort of the lay public who live adjacent cannot be doubted, and, as we urged last week, every place of this description should have a private entrance, be detached from all premises not connected with a medical school, be efficiently ventilated, and rigidly secluded from public gaze. We fear that Mr. Cooke will scarcely succeed in fulfilling these requisites in any of the too-crowded streets of the metropolis; and we cannot but regret that he had not avoided this publicity by remaining at the "proper place at the bottom of the garden" in Stamford-street, which was built on purpose. In the lengthy report in the daily press, post-mortem rooms are confounded with dissecting-rooms, in spite of the many great and obvious differences between them. As in the former the bodies are not disinfected, putrefactive odours may sometimes escape; but in the latter these may with due care be always removed, or at least reduced to a minimum. This distinction was scarcely insisted on with sufficient force for the lay public to clearly understand that elaborate antiseptic processes are always employed with this object in every dissecting-room; so that the length of time during which a body may have been kept is of no importance, and quite beside the question in such a case as this. The attention of the authorities of our medical schools will at once be directed to the improvement of any structural details in their dissecting-rooms which are not in complete accordance with the most enlightened sanitary precautions of the day, and we hear that great alterations are already in contemplation in one of the largest of them.

THE LORD CHANCELLOR ON TEMPERANCE.

THE Lord Chancellor is among the distinguished persons who have lately expressed interest in the provision of means for reducing the amount of intemperance in the community. He spoke at Bournemouth at the opening of coffee-rooms for the working classes, and insisted on the importance of removing temptations out of the way of the working-man by finding places where he might get comfortable quarters and wholesome food without being expected or required to purchase intoxicating drinks. This provision should be made in a way as little charitable as possible, so as to save the spirit of independence. It is gratifying to notice the universal feeling in favour of providing places which will meet the social wants met by the public-house, without having its disadvantages and dangers. The Lord Chancellor also spoke seriously of the necessity of religious appeals to men on this subject. While speaking of coffee-rooms, let us say a word in praise of coffee-stalls, which, as medical men, we see in the early morning, and in the middle of cold nights. If working men knew how much better for them it is to get a cup of hot coffee, all the better if well mixed with milk, and bread in the morning, than to begin the day with alcohol, they would soon multiply the coffee-stalls of London and all the large towns. We heartily wish success to coffee-rooms at Bournemouth, and everywhere, and also to coffee-stalls at night. A little more favour should be shown to these humble institutions in the daytime by the police authorities, especially in the winter season.

AMBULANCES.

As we are now in the midst of a serious epidemic, ratepayers and others interested are beginning to find out how little their representatives have done for them in the way of preventing the spread of contagious and infectious disease, and notably as to means of conveyance for the sick. We should like to have a census taken of metropolitan ambulances, and subsequently an exhibition of those vehicles dignified by the name of ambulance. As to numbers, we can safely prophesy that it would fall far short of the total number of sanitary districts into which the metropolis is divided. The Greenwich Board, for instance, has no vehicle of the kind, but borrows from the Union, and as the parish and district are very large, constant and often dangerous delays occur. It transpired at a recent meeting of the Guardians of the City of London Union, that the City Commissioners of Sewers (one of the most liberal sanitary authorities in the metropolis) are still unprovided with any sort of ambulance. Here are two cases taken at random out of the forty-eight sanitary districts into which the metropolis and its immediate suburbs are divided. We forbear to comment on the humiliating spectacle that would result if this exhibition of metropolitan ambulances were

actually held, although it would just now do good by showing the absurd inefficiency of our sanitary arrangements. We may hope that our contemporary *Punch* (always ready in a good cause) will take up the subject, and sketch for the ratepaying public a pitiful procession of venerable cabs, frowsy flys, and other forlorn conveyances at present dignified by the name of ambulance. But, even up to the present moment, forsooth, the suggestive powers of our local guardians and committeemen are confined to directing that the windows of these so-called ambulances shall be fitted with ground glass!

Some few years ago Dr. Horace Jeaffreson did very good service by designing (and promoting the design of) a very commodious ambulance, and if we recollect rightly a company or society was formed to promote the establishment of vehicles of that pattern all over the metropolis. The society seems to have collapsed, but an ambulance (perhaps more than one) of the kind referred to may always be procured at the Liverpool-road Fever Hospital, and we commend the fact to the attention of all metropolitan and other sanitary authorities.

MEDICAL MICROSCOPICAL SOCIETY.

THE annual general meeting of this body was held at 6, Pall Mall-place on Friday last. The president for the ensuing year is Henry Power, M.B., F.R.C.S.

The retiring president, Dr. J. F. Payne, delivered a short address, in which he discussed some of the relations of morbid histology to practical medicine. The points especially dwelt upon were those in which a better knowledge of tissues has distinctly contributed to a clearer discrimination of types of disease. This was the case with the whole class of degenerations; diseases which may almost be said to have been discovered by means of the microscope, but which were now well defined, not only in their minute characters, but in their clinical features. Still more generally recognised were the services of the microscope in the discrimination of tumours. The doubts and difficulties sometimes expressed as to the validity of microscopical diagnosis of tumours appear to rest upon a misconception. It is not a question whether the anatomical structure or the clinical properties of a growth are the more important; the latter must always be, in one sense, more important; but rather which of these two supplies us with the most definite and useful classification. It is a mistake also to attach too much importance to the question whether a name, such as "cancer," should or should not be applied to a particular tumour. No such name can possibly have any more meaning than what is put into it, and this depends entirely upon the definition with which we start. It would be a good plan to follow in this respect the example of the naturalists, and not to use a generic name without quoting some authority for its meaning to imply that the name is used simply as defined in a particular work or by a particular writer. Diseases of the kidney, of the liver, and of the nervous system supplied other examples of the important function of morbid histology in discovering and marking out anatomical types of disease, around which, when once defined, clinical symptoms come to group themselves, so that the anatomical change is seen to have a clinical history. When the choice lies between an anatomical and a functional or symptomatic definition of disease, the former is clearly to be preferred, as being more coherent and carrying with it a larger number of characters. For these reasons morbid anatomy supplies the direct indications not only in diagnosis, but even in treatment, which must always be directed to the most essential features of a disease, except in those instances where a particular symptom happens to be met by a particular remedy; and morbid anatomy must in an immense number of cases really rest upon morbid histology, because it is recognised that the processes both of life and of disease depend upon the relations of the minute elements of the body, so that it is to histology ultimately that we owe the most important principles of daily practice.

THE "WATER QUESTION."

RICHMOND has been engaged in an exceedingly practical discussion of the "water question," and the *arguments, ad rem* and *ad hominem*, have been employed in a fashion not, happily, common in these days of peaceable persuasion. The Southwark and Vauxhall Company cut off the supply, and the local authorities have done their best to dispense with the service of the Company by sinking artesian wells and taking the matter into their own hands. We are not advocates for the principle of trading by municipal corporations, but it has long been the opinion of economists, forming their judgment on the basis of history and experience, that water-supply is an enterprise which must ultimately be undertaken by bodies directly representing the public interests, and wholly apart from considerations of profit—beyond the ordinary rate of interest upon money invested on the security of municipal bonds. In fact, the provision of a sufficient and pure supply is only possible with works on a scale which would over-tax small districts. It cannot be long before a system of wells must be constructed, from which, not only the suburbs, but London itself, may be supplied, and the like necessity will probably arise in connexion with other large cities and towns. The possibility of a company cutting off the water-supply from a town, and placing the population in the position occupied by the people of Richmond, is in itself an overwhelming argument for reform. It is imperative that the supply of water should be as free and constant as the supply of air. No body of traders ought to be in a condition to take the law into its own hands and interrupt the service. The rights of corporations should be enforced by public justice only. The larger question how to meet the rapidly growing demand for more and better water than the present quasi-public companies can furnish presses urgently for solution, and it certainly seems to us that the only way out of the difficulty is that taken years ago with regard to the conveyance of letters. It is a case of such vital and widespread interest that the State or the municipal corporations must intervene.

NECESSARY INQUESTS.

THE probability of approaching legislation upon the appointment and the regulation of the duties of coroners makes it important to inquire, and if possible to define, what are necessary inquests. The *Birmingham Daily Post* recently learned with pleasure that "the number of deaths in which inquests were required considerably declined in Birmingham last year, and that the cost to the borough-rate was consequently much reduced." In 1876 only 657 inquests were held, at a cost of £1684; whereas during 1875 the inquests had been 865, and the cost £2127; the inquest cases had declined 208, and the cost £443. Thus in Birmingham the number of inquests held in 1876 was 24 per cent. below that in 1875. It would be interesting to know the real explanation of this remarkable decline in the number of inquests which the coroner for Birmingham deemed it necessary to hold during the last year. In 1875 inquests were held in Birmingham in 8·6 per cent. of the deaths registered within the borough, whereas the average proportion in 18 of the largest English towns was 6·3 per cent. In 1876 the proportion of inquest cases to deaths in Birmingham declined to 7·8 per cent., the average proportion in the large English towns being again 6·3 per cent. It may be presumed that

inquests are held, with scarcely an exception, in all cases of deaths from violence, and therefore it is necessary to bear in mind the number of deaths from this cause; in Birmingham they were 452 in 1875, and 388 in 1876. Deducting, therefore, from the total inquest cases in each year the reported deaths from violence, it appears that in 1875 the number of inquests held in cases of deaths from natural causes was 413, whereas in 1876 the number of this class of inquest cases declined to 269. It is difficult to believe that this decline can be entirely due to a decrease of sudden deaths or of deaths occurring under doubtful circumstances; it must rather be due to some change in the exercise of the coroner's discretion or opinion as to the necessity for holding inquests. At the present time it would be more than interesting to know the nature of the change in the practice of the coroner for the borough of Birmingham. We trust that we shall not see in the medical officer of health's report for 1876 any marked increase in the proportion of uncertified causes of death as one of the results of the decrease of inquests held in Birmingham, as we cannot regard inquests as unnecessary in cases where no scientific evidence of the cause of death is available for the death register.

A MANCHESTER CENTENARIAN.

IT has been so abundantly proved that not one in twenty of so-called centenarians have any real claim to that title, that there is some danger of the possibility of a human centenarian being doubted. The Registrar-General, in his recent annual reports, publishes certain facts relating to all persons whose ages in the death-register are stated as 100 years and upwards. According to the last published of these reports, the deaths of 69 persons were recorded in 1874 whose ages exceeded 100 years, and ranged upwards to 104 years; this list included a ward in chancery, an annuitant, and a gentleman who died in Derbyshire at the reported age of 102 years. It is difficult to say how few of those cases would stand investigation.

The *Manchester Examiner* recently published some interesting particulars relating to an old man, named John H. Hutton, now in his hundredth year, who still regularly attends a local chapel, and appears to take an intelligent part in the service. He was born on 18th August, 1777, married when he was twenty years of age, and in 1798 entered the employment of Messrs. Thos. Hoyle and Sons, at the Mayfield Works. After sixty years of uninterrupted employment by this firm, he retired on a pension of 20*s.* a week, and his name has, therefore, been upon their books for very nearly eighty years. He is said to have led a very regular life, remarkable for sobriety and temperance in the largest sense of those terms. His youngest surviving child is a married daughter, aged 74 years, and the fact that one of his granddaughters recently called upon him to obtain his blessing on her own grandchild, aged between two and three years, suggests the number of the generations of his descendants. During the sixty years of his active employment at the dye-works he never had a day's sickness, and, although he has now lost all his teeth, he does not own to having ever had a twinge of toothache. It is stated that he never used tobacco in any form. When recently visited by a medical practitioner he was pronounced free from all signs of active disease, excepting a tendency to bronchial affection, which was said to be unusual. His digestion was, from his own account, almost perfect, and his taste unimpaired. His sight, although dulled, enables him to read comfortably with spectacles that would suit an average sight at 60 years; the eyes have, however, the process of degeneration known as "arcus senilis" distinctly marked. His skin is naturally wrinkled, but scarcely more so than in many men fully twenty years younger. True centenarians appear to be so much more rare than common report and tombstones would have us believe, that trustworthy cases become especially interesting, and the Manchester case appears to be above suspicion.

THE PROFESSION OF TEACHING.

MRS. GREY'S well-argued letter in *The Times* of last week will do much to convince the public that the secondary education of the country should no longer be given to anyone and everyone who may think that, having failed in other vocations, he or she is especially fitted to communicate knowledge to, and train up, the children of Great Britain. We especially insist on the necessity of some proper guarantee of qualification for this office, for besides the great duty of fitting their pupils for the work and duties of life, teachers have much to do with the bodily welfare of those who are entrusted to their charge. The numerous hygienic problems connected with education, such as capacity of mental strain, choice of studies, punishment of incorrigibles, proper working of the ventilating arrangements of school-rooms, &c., are much too important to be left any longer than is absolutely unavoidable in the hands of those who have undergone no special preparation. We therefore wish every success to the new society for the training and registration of teachers, and only hope that the enlightened portion of the public will ably second their endeavours to secure properly qualified teachers for the secondary education of our rising generation. We cannot see that the examination and granting of certificates should devolve on the Government, as is suggested by Dr. Lyon Playfair, but we fear that the Universities will scarcely be induced to add such laborious duties to their present work.

TESTIMONIAL TO SIR HENRY COOPER.

AT a public meeting held at Hull last month, the Mayor in the chair, it was unanimously determined that on the occasion of the expiration of six years of office as the first chairman of the Hull School Board, the public services rendered to the town by Sir Henry Cooper be recognised by the foundation of one or more permanent scholarships bearing his name, in connexion with the public elementary schools, together with some personal presentation. Numerous contributions continue to be received towards the fund. Sir Henry Cooper, after completing his medical education in London, Edinburgh, and Paris, became M.B. of the London University in 1840, and M.D. in the subsequent year. In 1844 he settled down in Hull, and soon acquired an extensive practice. A year or so later he was elected physician to the Hull General Infirmary, in the place of Sir James Alderson, an office which he continued to hold with signal ability until 1874, when he was appointed consulting physician to the institution, and some time later chairman of the Board of Management. Sir Henry's connexion with the Hull Corporation dates as far back as 1834, when he served the office of chamberlain. He was subsequently created alderman, then in 1854-5 mayor and chief magistrate, during which time he received from Her Majesty the honour of knighthood. At the meeting of the British Association for the Advancement of Science, in the town, Sir Henry Cooper acted as local secretary, and read papers on the Vital Statistics of Hull and on the Cholera Visitation of 1849, which were afterwards published. As chairman of the School Board, the onerous duties of which office he has performed for six years, his ripe knowledge and influence have been productive of incalculable good; and these services in the cause of educational reform his fellow-townsmen are now about to acknowledge in a manner which will hand his name down to posterity.

LIVERPOOL ROYAL INFIRMARY.

AN endeavour will be made at the ensuing annual general meeting of the Liverpool Royal Infirmary to alter the laws relating to the election of honorary medical officers, and to place their appointment in the hands of the Committee, a body which now appoints the salaried officers, and the house-physicians and house-surgeons. We are not at all surprised to learn that the proposed change of regulations is altogether disapproved by the Medical Board, and that the members composing this body have presented a statement on the subject, in which the trustees are urged not to make the alterations, which, in the opinion of the Board, would be injurious to the interests of the charity, and likely to cause the appointments at the infirmary to be less eagerly sought for than heretofore. The following is the proposed law:—

"It will be proposed at this meeting to annul or alter (as the case may be) the laws now regulating the election of honorary medical officers to the Royal Infirmary and Lock Hospital, and to substitute in lieu thereof laws giving power to the officers and trustees forming the committee (twenty-nine in number) to fill up any vacancy hereafter occurring in any of the offices of physician or surgeon to the Royal Infirmary and Lock Hospital, or either of them."

Nothing, in our opinion, is more damaging to a medical institution than vexatious meddling with its unpaid staff; it tends to undermine their loyalty, and is subversive of the confidence and good feeling which usually exist among men so associated. We see no reason whatever why a rule which has worked well so long should now be put aside. A determination to enforce the proposed change against the expressed wish of the Medical Board will prove at once discreditable and disastrous.

THE CONJOINT SCHEMES.

THE Irish College of Surgeons has rejected the scheme for a conjoint examination in Ireland. We have never been satisfied that the Irish scheme was a workable one, especially with the Queen's University and the Apothecaries' Society left out of it. It was too costly and too elaborate and complicated for the purposes of a minimum and licensing examination. Nevertheless, it is a serious fact that the principal party to the scheme has abandoned it, and with it, apparently, all attempts at anything more feasible. The times are not favourable for the medical bodies thus ostentatiously to show their incapacity to unite and consolidate the examinations of the country. There are reasons for thinking that our medical examining arrangements will very soon have to be looked at from a public standpoint, and they are certainly not such as to withstand criticism. They are out of date.

It is satisfactory to learn that the English bodies have practically sunk their differences, and agreed to the scheme with which our readers are already familiar. It only wants to be made cheaper in operation to be tolerably satisfactory. Unless this is done there will remain objections which will greatly hinder its success, and the chance of its being accepted as a final arrangement. We have pointed out one way in which this can be done, and the time is opportune for ascertaining how far this way is feasible.

SANITARY WORK AT KENSINGTON.

DR. ORME DUDFIELD has compiled for the Kensington sanitary authority a code of suggestions for limiting the spread of small-pox, 20,000 of which have been printed and distributed to householders within the parish. Dr. Dudfield has also caused to be reprinted an extract from his monthly report, referring specially to the accommodation required in the metropolis for non-pauper cases of small-pox. In this extract, after referring to possible accommodation at Highgate, and the establishment of a local hospital, he strongly urges the plan now energetically propounded by Dr. Cortis and others, of giving the managers of the Metropolitan Asylums Board the power to provide for all cases, whether legally classed as paupers or not. It is notorious that up to the present time they have so provided, and in most cases recovered expenses from persons out of the pauper class, and on the score of efficient administration, as well as of economy, the plan appears specially worthy of consideration.

SACRIFICES TO FASHION.

"SPORT," in its only true sense, is a manly exercise, in which "killing" is not only a secondary, but an independent object. For example, "battue" shooting has no more claim to be called manly, or described as sport, than riding along a turnpike road with the view of catching up the hounds after a reach or a double, is hunting. If this were more commonly understood we should hear less of prodigious bags, and wholesale and reckless slaughter, against which every worthy instinct of man's nature rebels. It is not, however, in reference to this general abuse of sport—an abuse which discredits the pastime—we would now speak. The time has come to enter an urgent and strong protest against the wholesale sacrifice of birds and seals to fashion. The horrors of seal-slaughter have been painted in lurid hues, and the reckless folly of killing small birds has been exposed. Fashion, however, is inexorable, and the inhuman and reckless butchering goes on. It is useless to appeal to the feelings of women who, ignorant or forgetful of the suffering inflicted, array themselves in skins and feathers employed chiefly for decoration, and creat a demand far in excess of any legitimate supply. The appeal must be to the leaders of fashion. We do not mean those *grandes dames* who play the part of dolls in the hands of their dressmakers and milliners, but the designers of costume, to change a *mode* which involves practices revolting to common sense. The kindly interest shown by the Prince of Wales in the genial old man who lately tended the seals in the Zoological Society's Gardens with so much care, might point to a phase of feeling more creditable to human nature than that which fosters a wholesale and cruel sacrifice to the idol of fashion no specious argument can explain.

ART ANATOMY AT THE GOVERNMENT SCHOOLS.

THE students attending the course of lectures on the Anatomy of the Human Form given by Mr. Bellamy at the Science and Art Department, South Kensington, have now additional means of acquiring a more accurate knowledge of the subject than perhaps in any art school in England, from the fact that a licence has been granted the department for dissection. Alternately with the lectures given in the theatre of the museum, an advanced class of students meet over the subject dissected in the science schools, when the actual attachments of the muscles, ligaments, the influence of the various fasciæ, and the exact nature and capability of the various articulations, are demonstrated to them. The great value of this method of instruction on the recent subject, as contrasted with the mere casual observation of a pickle, is obvious. In accordance with the expressed wish of some of the lady students, a private course of demonstrations on the dead body has been instituted, conducted with all possible decorum, only such portions of the body as are actually under description being exposed, whilst the rest is entirely covered with a sheet—such, for instance, as the limbs, back, and thorax,—in fact, no dissecting-room associations are presented to them. We understand from

the lecturer that the amount of intelligence and desire of acquiring knowledge displayed by the female students is remarkable, and their form of study must in no way be associated in the minds of the public with that of the medical women.

THE CASE OF M'CONNON.

IT is barely credible that Mr. Secretary Cross can have had the case of M'Connon brought under his consideration; the circumstances are so clearly of a nature to suggest the expediency of granting a reprieve. The regulations were obviously broken, and the infuriated man placed, by those who held him in custody, in the company of his victim—a soldier as drunk as himself. Without doubt the crime was committed in consequence of the neglect, or breach, of rules wisely designed to prevent the very mischief that occurred. It is said the prisoner, being drunk, kicked the deceased to death. If that be the fact, the offence was rendered possible by the non-observance of the common police precaution of taking away the boots of a prisoner when he is locked up. The merest humanity suggests that when a man is drunk he should be protected from his own morbid impulse. Punish him as you will for becoming intoxicated, but, for common pity's sake, save him from doing deadly violence while he is a victim to the fiend of madness. Do not break all rules, neglect the most obvious precautions, and, when murder is done through your mismanagement, hang the drunken criminal to cover your carelessness.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

AT the recent meeting of the council of this fund, DR. GLOVER expressed his opinion that the sums hitherto collected annually in aid of the fund were altogether unequal to the amount that could be desired from all metropolitan churches and chapels, and proposed the following resolution, which was passed unanimously:—

"That it be an instruction from this council to the general purposes committee to consider whether any, and if so what, means can be taken to excite the interest and co-operation in this fund of congregations which have never yet contributed to it, and to increase the interest already kindly displayed in it by the great majority of London churches."

There can be no doubt that the amount collected is neither equal to the needs of the hospitals nor to the ability of the London congregations to help and co-operate with the hospitals. It would be a mistake if the council were to be at all satisfied with what it has already achieved. Fifty thousand pounds would be more worthy of the London churches than twenty-seven, and could be given with no more sacrifice on their part than would be good for them.

IDIOTS AND IMBECILES.

ATTENTION is again directed to the need of special provision for idiots and imbeciles by the report of a committee appointed at a conference in 1875. As regards idiots, the necessity for training-schools was long ago made the subject of legislative enactment. Unfortunately the law has been neglected, and now we find a disposition to confine idiots and imbeciles in huge receptacles such as those erected by the Metropolitan Asylums Board, upon which we have specially reported. The multiplication of houses in which classes of the poor so distinct in character and requiring such different treatment as children born with deficient or inactive brains, the subjects of incurable disease, and senile imbeciles, troublesome chiefly on account of their age, are huddled together, would be no public advantage, but an evil. The preliminary endeavour of philanthropists should be to compel the provision of training-schools and asylums for idiots from which they will not be expelled at the age of *sixteen*, which in the case of an idiot is often equivalent to five or six years of healthy life. The next step must be to restore the district asylums to their original and only proper purpose as houses of refuge for the really demented and hopelessly insane.

THE LAST EPIDEMIC OF SMALL-POX IN SOUTH SHIELDS.

SOME parties in the Union of South Shields would seem to be courting another heavy visitation of small-pox. The medical officer of health, Mr. Spear, makes the astounding statement that in the last epidemic no less than 750 lives were lost in the South Shields Union alone, with a population of only 74,000. Little short of 10,000 people, or at least an eighth of the population, were affected by the loathsome disease! To avert such a calamity Mr. Spear has urged on the Sanitary Committee of South Shields to join with Jarrow and Hebburn to erect a really capable hospital for infectious diseases; and the sanitary authorities of the largest town in the union have so dallied and delayed that the smaller ones have threatened to withdraw; unfortunately the medical members of the Shields Corporation have been among the principal obstructives. Dr. Denham vindicated the sufficiency of an old hospital that is falling to pieces, lets in the rain, and is incapable of repair. Mr. Young, surgeon, says they must not cringe to Jarrow, forgetting that it is a question of cringing to small-pox. We are glad to see some indications that the party of obstructives are likely to be defeated.

NEW ANÆSTHETIC AGENT.

RABUTEAU, in a memoir read before the Académie des Sciences, states that he has investigated the physiological properties and mode of elimination of hydrobromic ether. He has satisfied himself that this anæsthetic agent, which possesses properties intermediate to those of chloroform, bromoform, and ether, might be advantageously employed to produce surgical anæsthesia. The hydrobromic ether is neither a caustic nor an irritant. It can be ingested without difficulty; and applied without danger, not only to the skin, but to the external auditory meatus and to the mucous membrane. It is eliminated completely, or almost completely, by the respiratory passages, in whatever way it may have been introduced into the sytem.

HEALTH OF WHITBY.

THE dredging operations in Whitby harbour, to which we have already referred, seem to have come to a termination from want of funds. This is unfortunate, as the removal of part only of the rubbish lying in the sea close to the town stultifies the whole scheme, looking upon it as a sanitary measure. We observe that the death-rate of Whitby at the present time, although it shows a reduction on the mortality of preceding quarters, is still over 21 per 1000 annually, a figure considerably in excess of what should prevail in a town with such natural advantages. Dr. Taylerson, medical officer of health, reports that plans for the better sewering of the place have been obtained and are under consideration; but the difficulty of crossing the harbour to connect both sides of the town, and the great outlay involved in such an undertaking, make rapid progress impossible. It is time the inhabitants of Whitby bestirred themselves if they mean to sustain its reputation as an agreeable and healthy watering-place. Already the town is distanced in the competition—laudable to a degree, in that it is directed to securing the lowest possible death-rate—which goes on between health resorts by places not nearly so favoured by nature.

THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

THE President of the Local Government Board has appointed Friday, the 26th (to-day), to receive a deputation from the Society of Medical Officers of Health, as the members desire, among other questions, to direct the attention of the Board to the necessity of obtaining early information as to the existence of a contagious or infectious disease in any particular house, and to suggest the advisability of legislation with reference to this point. We believe that the Society intend to suggest that the occupier of the house should give information to the sanitary authority; and that the words "house, ship, or vessel" should be used, so as to include port as well as urban and rural sanitary work. The importance of this matter, in the face of an epidemic of small-pox, cannot be exaggerated.

THE SWEATING SYSTEM.

SOME legislative enactment must speedily be made for the suppression of the "sweating" system which prevails so extensively in the tailoring trade. The practice is perilous to the persons engaged in the trade, and fraught with the utmost danger to the community at large. We have more than once called attention to the evil of the system as it obtains in the West-end of London. It would appear that Birmingham has the reputation of being the worst "sweating" town in the kingdom. At a late meeting of the Birmingham Trade Council it was reported that the system is carried on by almost every large house in the town, and some startling instances were given of the recklessness with which it is pursued. Thus, at one house work was carried on for a large clothing firm whilst three children were ill of scarlet fever for a protracted period; in another a gentleman's coat was found lying on the body of a woman in her coffin. The Council resolved to appoint a committee to consider the best means of assisting the Trade Unions' Parliamentary Committee in their endeavours to abolish the system.

THE DESTROYING ANGEL.

INFANT life is decimated in France, and particularly in her large cities, a serious visitation in a country whose birth-rate does not keep pace with that of its neighbours. Two years ago the physicians who are also senators and deputies of the Corps Legislatif took measures to protect the lives of infants, but it was only the other day that these measures have had practical beginning. A meeting of the above indicated physicians has just been held in Paris, and, in course of discussion, it appeared that the public administration had not even sanctioned the chief provisions of the measures already taken and ratified by law. Such are the apathy and remissness with which an enactment affecting the immediate future of the country is treated in France. The president of the meeting, M. Laussedat, the secretary, M. Lionville, and two of its leading members, MM. Soye and Théophile Roussel, waited next day on the Minister of the Interior, and urged upon him earnestly the duty of sanctioning and enforcing the measures in question.

POISONED PEAS.

IT is just now, curiously enough, a vexed question how much copper—a foreign and, under certain conditions, poisonous substance, with which preserved peas are adulterated, to impart a fine green colour to the article—may be taken by the consumer without actual injury. This is a novel mode of looking at the subject. How much lead can be introduced into hair-dyes without afflicting those who use them with lead-colic or lead-palsy? How much arsenic may be spread over wall-paper without seriously affecting those who inhabit apartments in which such deleterious decorations are employed? How long may a man go on eating dishes poisoned with minute doses of antimony before he succumbs? Common-sense suggests that it would be wise to eliminate poisons such as lead, arsenic, antimony, and copper from our food, especially when they are only required for colouring purposes. We think it would be well if the law simply registered and applied the dictates of common-sense.

CONVICTION UNDER THE APOTHECARIES ACT.

EDWIN GRAYSTON, 263, Great Russell-street, herbalist, was summoned a few days ago before the Birmingham County Court by the Master, Wardens, and Society of the Art and Mystery of Apothecaries of the City of London for having practised as an apothecary without being qualified according to the Apothecaries Act. The defendant apologised. In consideration, the Society promised that no execution should be issued unless the defendant offended again, but a verdict was entered for £20 and costs. We are glad to see the Apothecaries' Society vindicating the law to which it owes its own long and not unuseful existence.

HOW SMALL-POX IS SPREAD.

MR. ROBERT BIANCHI, medical officer of health for the St. Saviour's district, found, some few days ago, a man suffering from small-pox, in a room situated in a yard leading out of High-street, Borough. There were other persons in the room engaged in tailor's work. An order was given for the removal of the patient and the fumigation of the apartment. Were the clothes in process of construction disinfected at the same time?

A NEW periodical is announced to be about to appear in Paris, entitled the *Monthly Review of Medicine and Surgery*, under the auspices of such leaders of the profession as MM. Charcot, Chauveau, Ollier, Parrot, and Verneuil; the editors being MM. Lépine and Nicaise. The contents of the first number are:—Contribution to the Study of Localisation in the Cortex of the Cerebral Hemispheres, by Charcot and Pitres; on the Postponement of the Carotid Pulse in Aortic Incompetency, by R. Tripier; on Wounds considered as an Evolving Cause of Diatheses, and as determining their Local Manifestations, by A. Verneuil; on Infectious Myositis, by Nicaise; on Progressive Anæmia, by R. Lépine. The review is to be published by Germer Baillière, and is to appear on the first of each month.

THE Cambridge Improvement Commissioners (urban sanitary authority) are taking steps to provide for a possible outbreak of small-pox in the town. A scheme has been adopted which comprises the erection of a disinfecting house, together with sheds and apparatus, at a cost of £500. In the last quarterly report of Mr. Anningson, medical officer of health, we find it stated that the death-rate of Cambridge for the period ending December 31st, was (exclusive of members of colleges) only 16·4 per 1000 annually. This is a very satisfactory return, although it would seem that the drainage of the town is yet susceptible of considerable improvement.

DR. JOHN FAURE-MILLER, of Paris, has just been nominated a Knight of the Legion of Honour by the President of the French Republic. It is gratifying to have to record this honour obtained by a countryman, and one of our own profession; and we take especial pleasure in mentioning in the columns of this journal (with which Dr. Faure-Miller has been associated some fourteen years) the high distinction which has just been conferred upon that gentleman.

A CORRESPONDENT to *The Times* has called attention to the unnecessarily cheerless state of the sick wards of our hospitals arising from their walls being completely bare of all ornament, and presenting a sea of dreary whitewash, dull distemper, or paint. He suggests that if a few philanthropists would each send a spare scrap of art occasionally something would be done to lighten the gloom of the sick wards.

THE Council of the Royal College of Surgeons in Ireland have reappointed Rawdon Macnamara, F.R.C.S. Irel., representative of the College on the General Council of Medical Education and Registration, for the ensuing year; and the Society of Apothecaries, London, have re-appointed Edward Bradford, F.R.C.S.Eng., as the representative of the Society for the ensuing five years.

A MEETING of the Executive Committee of the General Medical Council will be held on Tuesday, the 30th instant, when the usual order will be made for printing and publishing the Register, and for laying before the Council the account of receipts and expenditure for the last year. Several matters of importance will be brought forward at the same meeting.

WE are given to understand that a large amount of ether drinking goes on in certain parts of the North of England. It is found that a man can get drunk at a much less outlay of money on sulphuric ether than on alcoholic liquids; hence the consumption of the former drug is continually increasing.

WE understand that a series of clinical demonstrations on the employment of electricity in the diagnosis and treatment of diseases of the nervous system is to be given by Dr. Buzzard during February, at the National Hospital for the Paralysed and Epileptic, in Queen-square, Bloomsbury.

A FLOATING HOSPITAL is about to be established at Calcutta for the benefit of ships frequenting the port. The expenses of this institution are to be defrayed out of the port dues, and the management is to be supervised by the port surgeon, although the establishment will be virtually a branch of the general hospital. A hulk has already been procured for the purpose, at a cost of £1200.

Drs. H. Crookshank (Lond.), S. J. Gordon (Dub.), Charles Monks (Dub.), and J. Williams (Lond.) have received from the Imperial Ottoman Government the Military War Medal, in recognition of their services during the Turco-Servian campaign.

DR. SEDGWICK SAUNDERS, medical officer of health for the City, has suggested to his committee the desirability of establishing an inquest-room in the district.

PROF. TYNDALL ON ATMOSPHERIC GERMS.

THE experiments which Professor Tyndall described on Friday, the 19th instant, to an audience which crowded the lecture-theatre of the Royal Institution to the roof, were supplementary to those which attracted so much attention a year ago. It will be remembered that on the last occasion the power of the floating dust of the atmosphere to induce putrefactive change in organic solutions was illustrated in a variety of ways. Air which had become optically pure—that is, free from floating particles—by filtration or by subsidence in a box smeared inside with glycerine, was shown to be powerless to induce putrefaction. A great number of infusions were experimented on. The results were obtained with ease, and even the very failures were instructive and easily explained. Later researches have, however, been attended with unexpected difficulties, and repetitions of the experiments of last year were for a time uniformly unsuccessful. The causes of these apparent anomalies were, however, after a time discovered. For one thing, the hay operated on was in some cases very old and dry, and hence difficult to devitalise, as dried seeds are more tenacious of life than fresh ones. The atmosphere of the Royal Institution had, moreover, by this time become so "infected" with the germs of bacteria that extraordinary precautions were required to exclude them. The experiments of Cohn and Roberts, as well as the earlier ones of Tyndall, accordingly gave, on repetition, results which, from the experimenter's point of view, appeared subversive of the theory. But the cause of the failures once suggested, the remedy followed at once. Instead of introducing the organic infusions into the purified air of the boxes by common pipettes, as in last year's experiments, Professor Tyndall now adopted separating funnels, which prevented the possibility of air entering with the liquids. Similar precautions were adopted with Cohn's experiments, and the result was in almost every case a complete success. The liquids remained perfectly bright and free from organic life, and so of course from putrefactive change. All other conditions remaining the same, it was in fact found easy, by mere modifications in manipulation, to ensure in any given case, the rapid development or the total absence of bacterial life. Apparent confirmation of the conclusions reached by these researches was obtained by the sudden transference of the experiments to the pure atmosphere of Kew Gardens. There in the new laboratory, and with new apparatus, the experiments which had proved so refractory in Albemarle-street were repeated, and became once more easy. No exceptional care was now required, and everything that was done last year was reproduced without the slightest difficulty.

We refrain at present from commenting on these interesting researches, and particularly from discussing their physiological and pathological bearings. Professor Huxley spoke of them at the Royal Society on the evening before the lecture in terms of warm approval, and characterised them as the most conclusive experiments on the subject hitherto made.

THE SMALL-POX EPIDEMIC.

So far as the returns of the Registrar-General afford the means for judging, Liverpool, Manchester and Salford, and London continue to be the only important epidemic centres of small-pox infection. During the first three weeks of this year the annual death-rate from the disease was equal to 1 per 1000 persons living in Manchester and Salford (it was 3 per 1000 in Salford alone), 1·5 in London, and 2·0 in Liverpool. The fatal cases in these three weeks may be said to have been stationary in Liverpool, they increased in Salford, and showed a decline in London.

The registered deaths from small-pox in London, which in the first two weeks of January had been 116 and 100, further declined to 79 in the week ending 20th inst. Bearing in mind the fluctuations in the weekly numbers of deaths from small-pox recorded in London during the last epidemic, it would be dangerous to assume that this recent marked decline in the fatal cases signifies a permanent decline of this epidemic, more especially as the proportion of deaths to recoveries recorded in the Metropolitan Asylum Small-pox Hospitals during the first three weeks of this year showed a further increase upon that which prevailed during preceding months. The disease does not yet ap-

pear to have assumed a milder type, which is usually the case when an epidemic is declining.

Of the 79 deaths from small-pox in London, 30 occurred in the Metropolitan Asylum Hospitals at Homerton, Stockwell, and Hampstead, 4 in the Highgate Small-pox Hospital, 3 in workhouse establishments, and the remaining 42, or 53 per cent. of the total cases, occurred in private dwellings. Nine of the small-pox patients had resided in Lambeth, 8 in Hackney, 6 in Bow, 6 in Camberwell, and 5 in Wandsworth and Clapham; 6 belonged to the west, 17 to the north, 24 to the east, 31 to the south, and not one to the central groups of districts. The annual rate of mortality from small-pox per ten thousand persons living was equal to 5 in the west, 11 in the north, 15 in the south, and 19 in the east of London. The accommodation for small-pox patients in the Metropolitan Asylum Hospitals is still 900 beds, of which 846 were occupied on 20th instant, against numbers increasing steadily from 185 to 873 during the twelve preceding weeks.

In 29 of the 79 fatal cases of small-pox in London (last week) the medical certificates gave no information as to vaccination. Of the 50 stated cases, 32 were certified as unvaccinated, and 18 as vaccinated. Distributing the 29 not stated cases in a similar proportion, and assuming that 90 per cent. of the total population in London have been more or less completely vaccinated, the Registrar-General calculates that "but one death from small-pox was registered last week among 114,000 vaccinated persons, whereas the proportion among the unvaccinated was one death in every 7000 persons." From these figures it appears that during the week small-pox was more than sixteen times as fatal among unvaccinated as among so-called vaccinated persons. These figures, however, only partially exhibit the beneficial effects of vaccination, as in cases of attack the mortality among the unvaccinated is four times greater than it is among the vaccinated; and it is worthy of remark that of the 18 fatal cases last week certified as vaccinated, eleven were of persons aged over 20 years, not one of whom was stated to have been revaccinated.

In the outer ring of suburban districts 10 fatal cases of small-pox were registered during the third week of January, of which six occurred in the district of West Ham, and one in each of the sub-districts of Croydon, Sunbury, Chiswick, and Hornsey.

The sanitary authorities of the metropolis are in a few instances awakening to the necessity of, and their responsibility for, providing hospital accommodation for non-pauper cases of small-pox. In St. Pancras a hospital with 40 beds has been established and equipped; and on Tuesday afternoon the City guardians adopted, by a small majority, the recommendation of a committee to adapt a portion of the old casual wards in Northumberland-alley for urgent non-pauper cases of small-pox.

Correspondence.

"Audi alteram partem."

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

To the Editor of THE LANCET.

SIR,—Before and after the time that I was house-surgeon to the York-road Lying-in Hospital in 1839 a fearful epidemic prevailed at that institution. The great number of patients were also attended by midwives at their own homes. The midwives sent for assistance to the hospital in complicated cases of labour only. During my residence I was sent for to see two patients, and those two were the only out-patients who (subsequently to my visits) suffered from puerperal fever. The governors ultimately closed the hospital, justly conceiving that the women were safer at their own homes attended by the midwives than with all the comforts of the hospital, together with the assistance of the physicians and resident officers. The same verdict has been given by the two house visitors, who have lately undertaken the responsibility of closing Queen Charlotte's Hospital.

It must, however, be remembered that epidemics of this nature do not arise suddenly. They have their periods of growth and decline, and much may be done in the way of prevention in their origin. Some years ago, when cases of puerperal fever were occurring at Queen Charlotte's Hospital, I carried a motion, not without some difficulty, that no one should be allowed to touch a patient without having previously washed his or her hands in a disinfecting solution, and I had the gratification of finding that no fresh case of puerperal fever occurred until the usual term of closing the hospital in the summer. According to the present rules of the hospital there will be no general meeting of governors until May, and a very grave responsibility would rest with the house visitors if they were now to reopen the hospital upon its former footing; but as the diseases which have attracted such marked attention are in a great measure "preventable," much might be done between this time and the next general meeting. I, therefore, beg to send you an abstract of a letter which I wrote upon this subject to an influential governor on the 11th inst.:—

"The circumstances mentioned at the general meeting of the governors of Queen Charlotte's Hospital yesterday have impressed me deeply. I have carefully thought over the matter, and the fearful mortality which has occurred during the last few years convinces me that the opinion expressed by Mr. Charles Hawkins (who has done more than any other governor in the administration of the affairs of the hospital) is correct. The governors would not be justified, in my opinion, in reopening the hospital upon its former footing. By so doing they would expose the poor patients, who are not capable of judging for themselves, to great risk, and if the death-rate were to continue the same as it has been during the last two or three years the lives of many patients would be sacrificed which, in the ordinary course of nature, would be spared. Before closing the hospital altogether I should, however, be very glad if I could prevail upon the governors to try the plan of treating the patients in the hospital as they would be treated in their own homes. This might easily be done together with the advantages which a hospital in some respects affords. I would suggest that, *as a rule*, no patient should be examined either before or after delivery; in exceptional cases, that it should be the duty of the midwife or matron to be present, and to see that a solution of carbolic acid was at hand for the purpose of ablution before and after any such necessary examination.

"In the surgical wards of hospitals epidemics frequently broke out in former years, and experienced surgeons declined to do any operations which could possibly be avoided during the prevalence of these epidemics. The diseases which there occurred were in their character and type very similar to those usually met with in puerperal fever, and the results were often identical. It has now been found that by carefully excluding the contact of any foreign particles the risk of this class of diseases is very greatly diminished. The friends of Mr. Lister of Edinburgh boast that he has banished suppuration from his wards: whether this be actually the case or not, the experience of many London surgeons proves that the risk of infection from without may be very greatly diminished, if not altogether avoided.

"We do not know at present the exact conditions under which infection may be conveyed, but we do know that it may be conveyed in a very subtle form, and in particles so minute as to elude our observation even with the aid of the most powerful microscope. It may be conveyed, as experience has abundantly proved, on lint, on sponges, by the fingers, by instruments not properly disinfected, and perhaps by particles floating in the air. Until we do know the exact conditions under which the fearful disease may be communicated (and it having been proved that it may be communicated by some form of contact), it appears to me reasonable that we should avoid, as far as possible, *all* forms of contact which might convey it.

"I should, therefore, be glad if I could induce the governors of Queen Charlotte's Hospital to try the experiment of keeping the hospital open for in-patients for a year, leaving the natural process of labour interfered with as little as possible."

In a most able address lately delivered by Dr. Priestley at the Obstetrical Society, he says: "I am disposed to recommend a week's seclusion after regular attendance has ceased on a single puerperal fever case. When a series of

cases have occurred in the practice of any one medical man, he should absent himself from midwifery practice for a month at least."

I earnestly trust that, by attention to the preventable causes of disease, Queen Charlotte's Hospital may still be made available for the purposes for which it was instituted.

I am, Sir, your obedient servant,

HENRY LEE,
Consulting Surgeon to the Hospital.

Savile-row, Jan. 22nd.

THE EXAMINERSHIP IN ANATOMY AT GLASGOW.

To the Editor of THE LANCET.

SIR,—It is difficult for us here to recognise, in your Glasgow correspondent's version of local events, the occurrences in which we are ourselves the actors. With your kind permission I shall endeavour to show how this is, by stating the full history of the recent election of an Examiner in Anatomy by the Faculty.

Dr. George Buchanan resigned his examinership for reasons stated in the letter conveying his resignation, which it would have been better for your correspondent to quote than to apply adjectives to the resignation which derive all their weight from a presumed inadequacy or unreality of the reasons alleged.

The "special meeting of the Faculty" was forced on by the interposition of the standing orders by Dr. Lindsay, a lecturer in Anderson's University, who resisted the appeals of the President and other Fellows, after a conspicuous consultation with Dr. Charteris, another lecturer of Anderson's University.

"Dr. Alex. Patterson, one of the surgeons to the Western Infirmary," was nominated by Dr. Lindsay at the general election in October last, not for the vacant examinership in Surgery against the lecturer on Surgery in the Andersonian, although he is eminently well qualified for that office, but as an examiner in Medical Jurisprudence against the lecturer on the same subject in the Royal Infirmary School, although he has no special qualifications. He was also, as your correspondent states, nominated at this special meeting as an examiner in Anatomy, and supported by all the adherents of the Andersonian school (who had, at a former meeting, secured for *their* lecturer on Anatomy one of the anatomical examinerships) against "Mr. Clarke," the lecturer on Anatomy at the Royal Infirmary, on whose behalf his proposers could also say that he was joint editor with Dr. George Buchanan of the last edition of Wilson's well-known manual of Anatomy, as well as a coadjutor with the editors of the last edition of Quain, while Dr. Patterson's only special claim advanced was certain achievements of his youth in the shape of prizes gained as a student in the anatomy class of the University!

Such being the choice before the Faculty, and such the obvious attitude of the Andersonian towards Mr. Clarke, it is useless to attempt to conceal this attitude by a reference to the fact that this gentleman's proposer was "one of the Andersonian medical trustees," or a suggestion of some impossible rivalry between "general practitioners" and others who are something else, conjured up in a body like the Faculty, whose fellows all, with trifling exceptions, occupy that honourable position. Rather let the fact that a lecturer in the rival school was proposed by one and supported by several of the Andersonian medical trustees teach Dr. Charteris and his colleagues in this town that they are attempting to work out the regeneration of their school on wrong lines and alienating their best friends. Let them make up their minds that both schools must be represented on the Faculty Board rather than endeavour, under the misleading cry of "General practitioners to the rescue," to secure a few votes for a monopoly in favour of the Andersonian. As a trustee myself, I feel the greatest sympathy with the latter school, which has now to struggle unaided against a rival supported with all the material advantages of an old-established and, in a pecuniary sense, powerful hospital, after having gained an honourable name among the schools of the country. Still, fair play must be paramount, and I trust, in spite of your correspondent's threatened *coup d'état*, that in October next the Faculty will see justice done to both schools at the annual elections.

I am, Sir, your obedient servant,

JAS. B. RUSSELL.

Sanitary Department, Montrose-street, Glasgow, January 22nd, 1877.

INCISION OF THE CORNEA IN ACUTE SUPPURATIVE INFLAMMATION.

To the Editor of THE LANCET.

SIR,—The case of "pannus of the cornea, treated by free incision," reported in THE LANCET, December 30th, 1876, by Mr. Vose Solomon, is an additional illustration of the value of the principle laid down by Mr. Pridgin Teale, in a paper contained in the Royal London Ophthalmic Hospital Reports, part i, vol. 8, p. 61, October, 1874.

In introducing the paper, Mr. Teale writes:—"The object of this paper is to advocate a method of dealing with certain acute disorders of the eye which, for wide range of applicability and constancy of result, seems not unlikely to rank as second only to iridectomy, as a means whereby we may *rapidly*, often *instantaneously*, relieve intolerable pain, arrest the progress of formidable disease, and preserve the eye from irreparable damage." He then goes on to say—

"The following principles seem to be indicated by the cases in which I have tested the operation during the last year and a half.

"(*a*) That suppurative affections of the cornea and iris which do not rapidly yield to atropine and opiates, ought to be dealt with by *direct incision through the median part of the cornea into the anterior chamber*, just as much, as a matter of course, as one would incise a whitlow or a thecal abscess.

"(*b*) That such an incision may be made crucial or T shaped, if it be thought desirable that the wound should not heal up rapidly.

"(*c*) That an incision near the centre of the cornea, in length about one-third of its diameter, *vertically* through the lamellæ into the anterior chamber, does not, as a rule, produce any serious damage to the cornea by way of opacity, nor to the iris by way of prolapse or synechia anterior.

(*d*) That in hypopyon a median incision of the cornea gives exit to pus and purulent lymph lodged in the anterior chambers more readily, certainly, and completely than a marginal incision.

"(*e*) That an incision into the anterior chamber, through suppurating cornea, can arrest destructive suppuration and sloughing, where iridectomy has been already employed unsuccessfully.

"(*f*) That on incising in its early stage a circumscribed abscess in the layers of the cornea, a small white body sometimes escapes from the opaque spot, which, when placed under the microscope, proves to be broken-down corneal fibre, infiltrated with pus-corpuscles. Bader (p. 169) has observed that the opaque material forming hypopyon often contains débris of corneal tissue, but I am not aware that the corneal slough escaping from the incised spot, *like the core out of a boil*, has been identified."

The eminent success which has attended Mr. Solomon's case is clearly attributable to the corneal incision; the immediate diminution of all the severer symptoms, especially the acute pain, shows how much is due to incision alone. In the eleven cases reported by Mr. Teale in the same article, where no other treatment was combined, the corneal incision was proved to be quite sufficient to ensure immediate relief from most distressing symptoms, and ultimately to secure useful sight, where otherwise varying degrees of blindness appeared to be impending.

I remain, Sir, yours truly,

H. BENDELACK HEWETSON.

Leeds, Jan. 10, 1877.

THE ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—There is one grievance in connexion with the present administration of the Army Medical Department that I hardly ever remember—if, indeed, I ever remember—to have seen alluded to in your columns, either by letter or otherwise, and that is the almost absolute prohibition of exchanges. Considering that regimental officers are allowed

to exchange, the prohibition among medical officers can be called nothing but injustice. An exchange does harm to no one, it affects nobody's place on the roster except the two who exchange, and gives the State two contented servants instead of two discontented ones, if, indeed, its prohibition does not drive one out of the active service altogether. I received two letters the other day from medical officers, one complaining that the prohibition of exchanges had driven him on to half-pay, and the other that their prohibition obliged him to stay at home where the climate did not suit his health. If these men had been combatants both could probably have exchanged. A man whom India suits is far more likely to be efficient there than a man with whom the climate does not agree; but I need not add more.

Yours faithfully,

M. D.

PARIS.

(From our own Correspondent.)

THE Bill proposed by M. Roger Marvaise to regulate the practice of medicine by foreigners in France has not yet been discussed in the Assembly. Its advocates, however, profess to be perfectly satisfied with the progress of events, and confidently anticipate an early and decisive triumph. I regret to say that the able and earnest appeals which the London journals have made in this regard have only had the effect of inspiring a more inveterate partisanship in this country, and of rendering the champions of the measure the bolder and the firmer in its advocacy. Whilst I have every reason to believe that the leading members of the Faculty fully realise the injustice and the impolicy of the proposed law, the professional men who hold seats in the Chamber seem resolved to push it through at all hazards, and without regard to consequences. As you may, perhaps, be aware, the Assembly contains an unusually large number of medical men, a majority of whom claim affiliation with the Extreme Left, and are Radical to the last degree. These political doctors, though not previously distinguished in any remarkable manner for the brilliancy of their medical careers, or for their devotion to the interests of the profession, have signalised their elevation to legislative honour by organising themselves into a committee which assumes a special guardianship over medical and professional matters. Among the results of their multitudinous conferences, the present scheme for the regulation of the practice of medicine by foreigners is conspicuously prominent; and, as I have before indicated, the general impression here is that the same spirit which has inspired the proposition will prompt to the speedy enactment of the law, and to its most rigorous execution.

No one pretends to deny the right of a Government to exact a proper measure of qualification upon the part of those who propose to practise medicine under its protection, and to establish the mode by which to determine that question. The interests of society and of the profession unite, in fact, not alone in acknowledging this prerogative, but in insisting upon its exercise; and if the test sought to be established by the Bill of M. Roger Marvaise—or rather of the self-created medical committee for which he acts—were intrinsically or comparatively a just and equitable one, nothing could be legitimately urged against it. The test proposed does not, however, fulfil either of these conditions, as can be easily shown. In order to determine whether or not a foreigner possesses the requisite qualifications, the new law requires that he shall pass the "examinations prescribed by the French law," or, in other words, shall be accepted by a French faculty after a critical examination, conducted in the French language, on anatomy and physiology, with dissections; on medical pathology, surgical pathology, and operative surgery; on comparative anatomy, physics, chemistry, and pharmacy; on hygiene; medical jurisprudence, materia medica, and therapeutics; on clinical medicine, clinical surgery, and practical obstetrics, together with an extemporaneous essay on some subject selected by the examiners, an elaborate thesis on a topic chosen by the aspirant, and an oral dissertation or debate in regard to any matter embraced in the curriculum of the school. Now, let me ask, how many medical men are there in England, or in any country, who could hope for a favourable report from an alien board, speaking a foreign tongue, wedded to its own theories and having a peculiar nomenclature, after the application of such a test of qualification as is embodied in these examinations?

Again, the proposed law is not only intrinsically unjust, but it is inequitable when compared with the existing—is a step backward and downwards from a point already gained in the cause of progress and enlightenment. By Article 4th, 19th Ventose, year xi., the Minister of Public Instruction can accord to a foreign physician "the right to practise in the territory of the Republic," with or without the consent of the Medical Faculty; and I have reason to know that the prerogative has long been exercised most cautiously and independently. In order to determine the question of an applicant's qualification, his diplomas and testimonials are referred to the "Advisary Committee of Public Instruction," in which the Faculty is represented at present by Professor Chauffard, an exceedingly able and conscientious gentleman, whose special business it is to inquire critically into the source and value of the degrees presented, and after having carefully weighed all the evidence of sufficiency and character attainable in the case, to report favourably or otherwise at discretion. Permit to say also that no man has been licensed for a long time in France without this inquiry into his antecedents, his medical knowledge, and his professional status, or in defiance of an adverse judgment by this committee, and that the liberty of the Minister in this regard has been keenly realised by many disappointed candidates. In the course of conversation with Professor Chauffard, I found him thoroughly posted in regard to the medical schools of Europe, as well as the laws regulating the practice of medicine in various countries; and I was shown an immense pile of papers which he informed me were the applications of those to whom authorisations had been refused within a very limited period. He likewise told me that the committee had annually grown more rigid and particular, that rejections had become the rule, and favourable reports the rare exceptions, and that it was impossible at the present day for anyone to secure a licence about whose qualifications there was the least uncertainty; and to show you how little weight political influence has with the Minister, I will simply say that I know of an instance in which an applicant came near ruining his chance of success by the bare fact of having carried to the department a letter from a foreign official of very high standing, asking that the permission might be accorded, and that several physicians of my acquaintance have recently been refused a licence, although the representative of one of the "great powers" of the earth personally solicited the concession, and used his best endeavours to secure it. But even if it could be demonstrated that the regulations now existing require improvement, it cannot be denied that they are based upon broader and better principles than the proscriptive scheme proposed by M. Roger Marvaise. They do not pretend to establish a test of qualification at once facile to the crammed recruit and impossible to the matured veteran. They do not seek to measure a man's professional proficiency by his acquaintance with the idioms of an alien tongue, and his adherence to the dogmas of an exclusive Faculty. In fine, they are neither unreasonable in themselves nor proscriptive in their tendencies, nor intrinsically and hopelessly antagonistic to that spirit of fairness, liberality, and fraternity which should distinguish the noblest of professions.

Although the Bill is not supposed to interfere with the practice of those who have already complied with the requirements of the law, it does not contain a single word to the contrary, and it certainly does strike a cruel and damaging blow at them when it denies the right of a foreigner to use the title of "doctor" unless he has obtained it in a French school. All medical men in this country are styled "doctors," and the practitioner to whom that title shall be refused hereafter will necessarily be forced into a position at once humiliating to his professional pride and detrimental to his personal interests. It is, in fact, nothing more nor less than an attempt to put an official stamp of degradation upon those whose degrees and

qualifications have been formally recognised by the laws of France, and who are the peers of its medical men in everything save a knowledge of the language of the country.

At another time I shall devote myself to a demonstration of the fallacy of the arguments which have been adduced in support of this particular restriction; and I will now conclude my letter by expressing the earnest hope that the profession of France will arouse itself to the importance of the issues at stake, and demand the rejection of a measure in its entirety which, whether tried by the standards of equity or viewed in the light of public policy, is shown to be both an injustice and a mistake.

Paris, January 22nd, 1877.

Obituary.

JOHN ADAMS, F.R.C.S. ENG.

WE regret to have to announce the death of Mr. John Adams, F.R.C.S., of 10, Finsbury-circus. The deceased gentleman was born in 1805 at Plaistow, Essex. He received his education at Reading under Dr. Valpy. Subsequently he entered the London Hospital as a student, being articled to Mr. Andrews. He obtained the membership of the College of Surgeons in 1828, and directly after was made Demonstrator of Anatomy at his hospital. In the course of a few years he was appointed lecturer, a post that he filled with zeal and ability for more than thirty years. After being for nineteen years assistant-surgeon, he was elected full surgeon, an appointment which he held until 1868, when he was appointed consulting surgeon to the London Hospital.

Mr. Adams was the author of a work on the "Prostate Gland," the article on "Injuries of the Head" in Cooper's Surgical Dictionary, and on the "Urethra" in the Cyclopædia of Anatomy. He was a member of the Council of the College of Surgeons, and also of the Court of Examiners. He was not re-elected to the Council Board, as he declined to pledge himself to vote for certain reforms which were not consonant with his views, and he did not, on account of failing health, offer himself for re-election to the Court of Examiners. Mr. John Adams was for many years secretary of the London Hospital Medical Club, and on his retirement was presented with a very handsome clock. He was also consulting surgeon to the South-Eastern Railway, the Tower Hamlets Dispensary, and the City of London Hospital for Diseases of the Chest. After a life of honourable usefulness, he passed away quietly at a ripe age, universally regretted.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on Monday, Tuesday, and Wednesday last:—

Anderson, Alex. R., L.S.A., Plymouth.
Archer, William G., M.B., Edgbaston.
Armstrong, William, Manchester.
Barrow, Lancelot A., Camden-road.
Blaxland, Herbert, Ryde, New South Wales.
Brett, James, Leamington.
Clowes, Joseph S., Merrick-square.
Craddock, Frederick H., Finsbury-park.
Creed, Charles P., Greenwich.
Cross, Horace E. F., L.R.C.P., Craven-street.
Davey, William T., L.S.A., Leyton, Essex.
Davies, Richard, Birmingham.
Devenish, Wilhelm, Trinidad, West Indies.
Diggle, Charles F., L.S.A., Manchester.
Fletcher, Charles W. C., Leicester.
Frobisher, William M., Leeds.
Gillam, Thomas H., L.S.A., Wesverham.
Goulder, Frank S., L.R.C.P., Norwich.
Green, Alfred P., St. John's-wood.
Green, Alfred W., L.R.C.P., Guy's Hospital.
Griffith, Thomas N., L.R.C.P., Oakley-square.
Hayward, Thomas E., Tewkesbury.
Hopgood, Wilfred F., Staleybridge.
Howlett, Edmund H., Stafford-gate.
James, Thomas, L.S.A., Aberdare, South Wales.
Law, Edward, Sheffield.
Kirkpatrick, John, M.D., Toronto.
Ling, Charles A. S., L.S.A., Gorleston, Suffolk.
Longstaff, George B., M.B., Wandsworth.
Looker, John E., Altrincham.
Macintire, John H. L., L.S.A., Richmond-road.
Malpas, Douglas D., Sevenoaks.
Mansell, Edward R., L.S.A., Upper Norwood.
Morgan, John, L.S.A., Strata Florida, South Wales.
Ogle, John R., L.R.C.P., Newport, Shropshire.
Rhodes, William, Birmingham.
Richards, Philip M., L.S.A., Fennant, Denbighshire.
Steele, Henry F., L.S.A., Stoke Ferry, Norfolk.
Stewart, Howard D., St. James's gardens.
Stokes, Richard L., Redmarley.
Stone, Herbert S., M.B., New Brunswick.
Suscombe, William E., Portcus-road.
Tarrant, William O'C., Clapham.
Ward, William T., M.D., Stanhope, Canada.
Winterbottom, Arthur T., Manchester.

The following gentlemen passed the primary examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 18th inst.:—

Harry Hine, F. T. Wilkinson, C. H. Haycroft, W. W. Leigh, Jas. Philip, G. H. W. Jones, Walter Gray, A. H. Burton, and C. J. Parke, Guy's Hospital; Thos. Crisp, E. D. Maddick, and J. P. Jeffreys, St. Thomas's Hospital; C. G. Stein, H. J. J. Lavis, and R. A. S. Chard, University College; T. S. Dyson, Cambridge and St. Bartholomew's Hospital; G. E. Weston, A. C. B. Crosby, T. G. Jenkins, and J. L. A. Hope, St. George's Hospital; H. S. Thorpe, J. W. Stone, John Protheroe, and Hugh Redmayne, St. Bartholomew's Hospital.

Of the 127 candidates examined on the above-named days, 35 failed to satisfy the Board, and were referred for three months' further anatomical and physiological study.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Jan. 4th and 18th:

Earle, Joseph Herbert, Brentwood, Essex.
Jaynes, Victor Alex., Hucclecote, Gloucester.
Wood, Edward Joshua, Higham, Kent.

The following gentleman also passed the Primary Professional Examination:—

Middleton, Chas. Fredk., University College.

DR. HANDSEL GRIFFITHS has been elected Corresponding Member of the Pharmaceutical Society of St. Petersburg.

MR. HY. THOMPSON, M.R.C.S. Eng., has obtained a superannuation allowance of £100 per annum, on resigning as medical officer of the Bangor Dispensary district of the Newtownards Union.

A SPECIAL Sub-committee of Guardians of the City of London has been formed, to co-operate with the Sanitary Committee of the Commissioners of Sewers in reference to the small-pox epidemic, and also for vaccination purposes.

ROYAL ZOOLOGICAL SOCIETY OF IRELAND.—The following have been elected among the office-bearers for 1877:—Vice-Presidents: William Carte, Robert McDonnell. Secretary: Samuel Haughton. Council: J. T. Banks, Samuel Gordon, Alexander Macalister, Stephen M. McSwiney, Edward Dillon Mapother.

THE next meeting of the Yorkshire Association of Medical Officers of Health will be held on Wednesday, January 31st, 1877, in the Town Hall, Hull, by the kind invitation of the Worshipful the Mayor and Kelburne King, M.D. General meeting 2.30 P.M. 1. Paper by J. F. Holden, Esq.: "Night-soil Collection." 2. Paper by G. Goldie, Esq.: "Climatic Diarrhœa and Typhoid Fever."

PRESENTATION.—Dr. H. J. Strong was recently presented by the residents in the Croydon Royal Masonic Benevolent Institution, to which he is honorary medical officer, with a handsome cabinet and watch, in recognition of his medical services to the asylum; while on the same occasion Mrs. Strong was presented with a valuable gold locket.

DUBLIN HOSPITAL SUNDAY FUND.—The following are the amounts which have been allotted to the various participating hospitals:—Adelaide, £765 4s. 4d.; City of Dublin, £577 8s. 3d.; Sir P. Dun's, £240 15s. 4d.; Steevens', £138 6s. 5d.; Meath, £479 9s. 4d.; Mercer's, £287 11s. 3d.; Whitworth, £54 9s 3d. Rotundo (lying-in), £131 11s. 3d.; Coombe (lying-in), £99 7s. 7d.; St. Mark's (ophthalmic), £139 0s. 7d.; National Eye and Ear Infirmary, £58 9s. 10d.; Convalescent Home, £343 9s. 0d.; Cork-street (fever), £122 6s. 1d.; Rathdown, £148 11s. 6d.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A Quarterly Court of the Directors of this Society was held on Wednesday, January 10th, in the rooms of the Royal Medical and Chirurgical Society. In the unavoidable absence of the President, the chair was taken at 8 o'clock by Dr. Pitman, V.P. The Treasurer reported that there were fifty eight widows and eleven children applicants for relief from the General Fund, and four children from the Copeland Fund. A sum of £1257 10s. was voted to be distributed among them. The expenses of the quarter were £65 15s. 9d. The deaths of two widows were reported by the Secretary; one had been receiving grants since December, 1828; and the other since September, 1847. One fresh application from a widow was considered and admitted. At Christmas last, a sum of £323 had been distributed as a present out of the surplus income amongst the widows and orphans, and fifteen guineas were presented to the Secretary as a compliment for his exertions in collecting the subscriptions of members. Five new members were elected.

Medical Appointments.

BENNATS, H. L., M.R.C.S. & L.S.A., has been appointed House Surgeon to St. Bartholomew's Hospital, Chatham, vice Martin, resigned.

BOLTON, R., M.D., L.A.H.D., has been appointed Medical Officer, Public Vaccinator, &c., for the Bangor Dispensary District of the Newtownards Union, vice Thomson, resigned.

BRODRIBB, C. A., M.R.C.S.E., M. & L.S.A.L., has been appointed Medical Officer for No. 2 District of the Hastings Union, vice Ticehurst, resigned.

BROOM, C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 3 District of the Cheltenham Union, vice Newton, resigned.

COOPER, F. W., L.R.C.S.Ed., has been appointed a Divisional Surgeon of the N Division of the Metropolitan Police.

CUTTERBUCK, W. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Debenham District of the Bosmere and Claydon Union, Suffolk, vice Bloomfield, resigned.

DAY, W. E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for No. 2 District of the Clifton Union, vice McBride, resigned.

DEANE, J. J., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Assistant Medical Officer to the Richmond District Lunatic Asylum, Dublin, vice Blackall, appointed Medical Officer to the Ballinasloe Dispensary District and the Workhouse of the Killadysert Union.

FARNFIELD, W. E., L.R.C.P.Ed., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer for the No. 10 District of the Parish of St. Mary, Lambeth, vice Pope, resigned.

FURNER, E. J., F.R.C.S.E., L.S.A.L., has been appointed Consulting Surgeon to the Sussex County Hospital, Brighton, on resigning as Surgeon.

FURNER, W., F.R.C.S.E., has been appointed an Assistant-Surgeon to the Sussex County Hospital, Brighton, vice Blaker, resigned.

GALLOWAY, J. M., M.D., C.M., has been appointed Medical Officer of Health for the Ramsbottom Urban Sanitary District, vice Smith, deceased.

GODFREY, G., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Surgeon to the Out-patient Department of the City of London Lying-in Hospital, City-road.

GRACE, H., L.R.C.P.I., M.R.C.S.E. & L.M., L.S.A.L., has been appointed Medical Officer for the No. 6 District of the Clifton Union, vice Moir, resigned.

HARLEY, T., M.R.C.S., has been appointed Medical Officer to the Temporary Small-pox Hospital in Cambridge-street, Agar-town.

HEALD, G. H., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the B and C Divisions of the Leeds Police Force.

HIGHMORE, W., M.D., late Senior Physician and Surgeon, has been appointed Consulting Medical Officer to the Yeatman Hospital, Sherborne, Dorset.

HUSBAND, C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Ripon Urban Sanitary District.

JACKSON, A., M.R.C.S.E., has been appointed a Surgeon to the Sheffield General Infirmary, vice Parker, deceased.

JEFFRIES, W. C., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident House Surgeon and Registrar to the Cancer Hospital, vice Davies, resigned.

MCCOMBIE, J., M.A., M.B., Assistant Medical Officer to the Homerton Fever Hospital, has been appointed Medical Superintendent of the Limehouse Small-pox Hospital.

MCCONNELL, A., L.R.C.P.Ed. & L.M., L.R.C.S.Ed., has been appointed a Medical Officer to the Belfast Union Infirmary, vice McCrea, deceased.

MACDOWELL, E. C., M.D., C.M., L.K.Q.C.P.I., has been appointed Surgeon to the Sligo County Infirmary, vice Little, deceased.

MCKENNEY, W., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for the Western District of the Cerne Union, and Medical Officer of Health for the Western Sub-district of the Cerne Rural Sanitary District, vice Duke, deceased.

MACKEY, E., M.D., has been appointed a Physician to the Queen's Hospital, Birmingham, vice Johnston, resigned.

MICHELL, H. S., M.R.C.S.E., has been appointed Resident Medical Officer and Secretary to the Chelsea, Brompton, and Belgrave Dispensary, vice Leonard, resigned.

MORRIS, J. H., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to the St. Stephen-street Branch of the Manchester Provident Dispensary.

PLAYFAIR, W. S., M.D., has been appointed a Physician-Accoucheur to her Royal and Imperial Highness the Duchess of Edinburgh.

QUICK, J. R., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the No. 4 District of the Wimborne and Cranborne Union, vice Underhay, resigned.

SAVILE, G. T., M.D., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Laverton District of the East Retford Union, Notts, vice Rossiter, resigned, and since deceased.

SEMPLE, R. H., M.D., F.R.C.P.I., has been appointed Physician for Out-patients to the North-Eastern Hospital for Children.

SIDEBOTHAM, G., M.R.C.S.E., has been appointed Assistant Resident Medical Officer to the Swansea Hospital, vice Edmond, resigned.

SNELL, G., L.R.C.P.Ed., M.R.C.S.E., has been appointed Assistant Medical Officer to the Glamorganshire Lunatic Asylum, Bridgend, vice Maclachlan, resigned.

SNELL, S., M.R.C.S.E., L.R.C.P.L., has been elected Ophthalmic Surgeon to the Sheffield General Infirmary.

SPOFFORTH, J., M.R.C.S.E., has been appointed House Physician to the Queen's Hospital, Birmingham, vice Hart, resigned.

SPOONER, F. H., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed House Surgeon to the East London Hospital for Children and Dispensary for Women, vice Ledtwich, appointed Assistant-Physician.

STAINTHORPE, W. W., M.D., C.M., has been appointed Resident Medical Officer to the Dulwich and Lower Norwood Dispensary.

STUART, J. S., M.D., C.M., has been appointed Medical Officer, Public Vaccinator, and Medical Officer of Health for the Parish of Kippen, Stirlingshire, vice Pringle, resigned.

THURSFIELD, W. N., M.D., has been appointed Medical Officer of Health for the Dawley Urban Sanitary District, Salop.

VERNON, W., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been appointed Medical Referee for the Finchingfield District of the Essex Provident Society.

WATNEY, Dr. H., has been appointed an Assistant Physician to St. George's Hospital, vice Whipham, appointed a Physician.

WILLIAMS, W. H., Jun., M.R.C.S.E., L.R.C.P.L., has been appointed Assistant Medical Officer to the Yeatman Hospital, Sherborne, Dorset.

WOOD, R. A. H., M.R.C.S.E., L.S.A.L., has been appointed a Surgeon to the Ladies' Charity and Lying-in Hospital, Liverpool, vice Fenton, resigned.

Births, Marriages, and Deaths.

BIRTHS.

APPLEYARD.—On the 31st July, at Longford, Tasmania, the wife of J. Appleyard, M.R.C.S.E. & L.S.A.L., of a daughter.

CLOUTING.—On the 13th inst., at Thetford, Norfolk, the wife of J. R. Clouting, M.R.C.S.E., of a son.

HILL.—On the 13th inst., at Lymington, the wife of William Robinson Hill, M.D., of a son.

ROBERTSON.—On the 20th inst., at Penrith, the wife of J. D. Robertson, M.D., of a daughter.

SMITH.—On the 19th inst., at Christ's Hospital, the wife of Alder H. Smith, M.D., of a daughter.

TAYLOR.—On the 20th inst., at Abbotsford-place, Glasgow, the wife of Robert D. Taylor, M.D., of a son.

MARRIAGES.

APPLETON—WEST.—On the 24th inst., at St. Mary's, Beverley, by the Hon. and Rev. F. G. Pelham, M.A., Vicar, Robert Carlisle Appleton, to Ann Elizabeth, eldest daughter of William West, of Walkergate House, Beverley.

DE BRENT—MACLELLAN.—On the 23rd inst., at Chatham, by the father of the bride, Mortimer John de Brent, M.R.C.S.E., L.S.A.L., of Church House, Aveley, Essex, eldest son of Samuel Brent, Esq., of Lee, Kent, to Aileen, only daughter of the Rev. R. B. B. Maclellan, of Rochester.

DIXON—COOKE.—On the 18th inst., at Holy Trinity, Eastbourne, Edward Livesey Dixon, M.D., to Elizabeth Anne, daughter of the late John C. Cooke, Esq.

WATSON—RIACH.—On the 23rd inst., at Morningside Parish Church, Edinburgh, by the Rev. Malcolm C. Taylor, D.D., one of Her Majesty's Chaplains for Scotland, John Adam Watson, L.R.C.P., L.R.C.S.Ed., of Chudleigh, Devon, to Helen Margaret Grilvie, eldest daughter of the late John Riach, of the Oriental Bank, Bombay and London.

DEATHS.

AITKEN.—On the 3rd ult., at Prince Albert, Cape of Good Hope, George Aitken, M.D., formerly of Ruthergien, Lanarkshire.

DAVIES.—On the 12th inst., at Beaumont-street, Marylebone, Dr. Henry Joseph Davies, aged 62.

EMBLETON.—On the 16th inst., at Beadnell, Northumberland, Robert Castles Embleton, L.R.C.S.Ed., aged 60.

KNIGHTON.—At Exeter, John Fortescue Knighton, M.R.C.S.E., of Dawlish, aged 61.

LEADMAN.—On the 16th inst., at St. Ives, Headingley, Leeds, Alexander Leadman, L.S.A.L., aged 57.

MARTIN.—On the 12th inst., at Grafton-street, Dublin, Dominick Martin, M.R.C.S.E., in the 72nd year of his age.

MAYNE.—On the 16th inst., at Honiton, Robert Furlong Mayne, M.D., aged 45.

SMITH.—On the 17th inst., at Torquay, William Frank Smith, M.B.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Hemming's Questions and Answers on Materia Medica &c.
Braune's Topographical Anatomy.
Pole's Life of Sir William Fairbairn.
Semple's Aids to Botany.
The Australian Medical Journal.
New York Medical Journal.
Boston Medical and Surgical Journal.
Dr. G. Rowell: Outline Diagram Forms.
Wilson's Handbook of Hygiene.
Christy's Forage Plants.

Notes, Short Comments, and Answers to Correspondents.

ARTISANS' DWELLINGS ACT.

A DEPUTATION from the Commissioners of Sewers had an interview with Mr. Cross at the Home Office last week to explain the mode in which the Artisans and Labourers' Dwellings Act is put in force in the City. Last year a scheme was laid before Mr. Cross for dealing with an area in the heart of the City, which for several reasons was found impracticable. On the present occasion a scheme embracing three different areas in the City was presented: one being in the west of the City, the second in the northern part, and the third in the eastern end—the Jewish quarter of the City. The first proposed to deal with some large houses in Fetter-lane, accommodating 240 persons, which had for many years been a source of anxiety and trouble to the sanitary authority, the ultimate cost of this being computed at £32,000. The second area was in the neighbourhood adjoining St. Luke's district, where it was proposed to remove houses that accommodated 1230 persons, at an estimated cost of £90,000. The third scheme dealt with the notorious neighbourhood of "Petticoat-lane" and its tributary courts in the Whitechapel district, running along the City boundary, the houses to be removed accommodating 1150 persons. This would be the costliest measure of all, as it was calculated to absorb a sum of £150,000. Mr. Cross was asked to give these schemes his best consideration, and to cause such inquiry to be made as he might think necessary. The Home Secretary expressed his pleasure at receiving the deputation, and said he should place the present schemes in proper hands to be examined, and with his own knowledge hoped to arrive at a proper conclusion on the subject. The enterprise and activity of the City authorities in dealing with measures designed to increase the health and comfort of the poorer classes, deserve the highest commendation. They have always proved worthy representatives of the first city in the world.

Dr. Rafael Ulecia, (Madrid.)—We regret we cannot do so.

TREATMENT OF HYDROPHOBIA IN GLASGOW.

To the Editor of THE LANCET.

SIR,—I have read with astonishment a case of hydrophobia in the Glasgow Royal Infirmary in your impression of to-day. I will not now discuss the question of the case being hydrophobia or not. But I will ask how came a dog to be allowed to pass into the chamber of a man in the state there described? Was it for experiment or was it accidental? If for experiment, God grant the Vivisection Act may protect our species. If accidental, it is to be blamed in no measured terms. Who owned the dog? And are dogs frequent privileged visitors among the cases most undeniably serious, and where their presence may lead to most serious results from fright? I quote your correspondent's words: "When seen at midday the hope was expressed that the symptoms, whatever was their origin, were passing off, and that the patient was in a fair way towards recovery. At 3.30 P.M. an event took place which completely and suddenly altered the aspect of the case. While the patient was lying, to all appearance, calmly in bed, a dog passed through the room, and was seen by him. Immediately thereafter he started up in bed, with his arms extended, and his eyes staring, his whole countenance indicating intense horror. He jumped out of bed, and, in attempting to climb over the screen, fell upon the floor; there he lay for a few minutes, groaning and talking, and tossing his limbs about." Again: "Pouring water from one vessel to another did not produce any effect; upon a few drops being sprinkled upon his face, the same sobbings were performed, and he complained of such a 'low trick being done upon him.'" Again I quote the words of the article: "For a short time there seemed to be a lucid interval, in which, in pitiful tones of voice, he asked those around him to take him up into some quiet room, and have an end made of him. This period of repose did not last long; for in a few minutes after being breathed upon and fanned with a towel, he became again incoherent and maniacal." And once again: "While standing behind him, and out of his sight, I blew my breath once or twice upon the neck and face, when at once the muscles of the neck and of the upper and lower extremities became rigid, and the diaphragm acted spasmodically; the spasm was not followed by a second without he was again provoked."

How often was he provoked? If tetanus is produced in two frogs by strychnia, the doses being equal, and it is wished to destroy one sooner than the other, let it be tormented by tapping or tickling, and the repeated severe spasms will soon do this; while the other, which has been left unmolested, will often recover.

I will not comment further on this remarkable article at present, but wait with some anxiety for the second case of the same disease, treated in the same infirmary.

Yours faithfully,
ARTHUR RICHARDSON, M.R.C.S., &c.

Rusholme, Manchester, Jan. 20th, 1877.

F. R. A. S.—It has been announced that the Noxious Vapours Commission will resume their sittings in Victoria-street, Westminster, on Feb. 6th, when evidence will probably be taken on behalf of the alkali manufacturers of the districts of the Mersey and the Tyne.

ARMY MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—In your issue of to-day "New York" has discovered an imaginary grievance in connexion with the army medical department. Might I request him again carefully to peruse the clause he refers to. It amounts in substance to this, that when a medical officer can be provided with quarters in barracks, he will not draw the staff allowance in lieu thereof.

Your obedient servant,
Jan. 20th, 1877. EX-LIEUTENANT.

THE CORONER'S DUTY DEFINED.

THE Home Secretary has opportunely reminded coroners of the limits by which inquiries conducted before them should be bounded. The City coroner having communicated to Mr. Cross a request from the jury in a recent case that a reward might be offered for the discovery of a supposed murderer, the Secretary of State replies, "*it was no part of their duty to find by whom the death was caused.*" The only legitimate province of a Coroner's Court inquiry is, as we have repeatedly asserted and insisted, to ascertain "*the cause of death.*" If this were more thoroughly understood and directly acted upon, there would be greater gains in the *medical* work, and less error in the legal functions, of a Court which is nothing if not scientific.

Fair Play.—The M.B. of a University is not entitled to style himself "Dr."

A KNOTTY QUESTION.

To the Editor of THE LANCET.

SIR,—I read in the Annus Medicus 1876 that "the weight of evidence is strongly against the safety of carbolised catgut ligatures in the treatment of aneurism." As it is possible that the searchers for the reason of this have been on the wrong track, a few practical words on knots may be useful in restoring confidence in what in other respects seems to be universally valued. This is shown by the fact that able men have given it the preference over all the other forms of ligature, which again is shown by their having at least tried it. They would not have used the catgut ligature at all unless they were satisfied that it possessed peculiar advantages, and before it is finally settled by the common consent of those who rule professional opinion that it ought to be discarded in tying arteries in their continuity (no one seems to doubt its value in tying the cut ends of arteries), I, for one, should be glad to know if the question of knots has had anything to do with its occasional want of success. I have not used much catgut, but I have tied a deal of fishing-gut (silkworm gut, which I have often thought may be advantageously carbolised in the same way and for the same purpose as catgut), and enough catgut to know that they behave in a precisely similar manner as far as knots go, and nothing slips more easily. As a practical gut-tier I can lay down two principles; the non-observance of either, and *à fortiori* of both, must lead to failure. The knots, in the first place, must be properly formed; and, in the second, must be perfectly made—that is, drawn tight. The first is the most important, as a properly formed knot may draw tight when a strain is put upon it; but absolute safety can only be found in observing both rules. In tying an artery surgeons always aim at making a reef-knot; but as there are four different ways in aiming at this same result, in which a string, with free ends, that has been placed under and across any body, such as an artery, may be tied, and as it seems natural to make the wrong turn, result is a granny, which is almost sure to slip, I believe that a simple rule, the observance of which must result in a properly made reef-knot, will be appreciated by many who would perhaps be loth to admit that they found any difficulty, and is worth placing on record. To exemplify: Having passed your ligature under and across the artery, take a free end in each hand; keep the end in the right hand in front of the end in the left hand in crossing the string so as to make it pass across, around and up under the end in the left hand; it will still be in front of the other free end, although it has changed hands; keep it in front in again bringing it across, and complete the knot in the usual way; the result will be a reef-knot. If instead you pass the right hand end (which, after passing across, around, and up under the end in the left hand, is transferred as before to the left hand, and is still in front) behind the end that was in the left hand (but in making the knot has passed to the right hand), in completing the knot you will make a granny. Again, take an end in each hand, the end in the right hand being behind; keep it behind, and pass it, as before, across, around, and up under the end in the left hand, it will come up behind; still keep it behind, and on completing the knot a reef-knot will be the result. If instead, before completing the knot, you allow it to pass in front of the other end, so altering its position with regard to its exit from around and under the other end, you will form a granny. In either case the knot is begun differently, and may be completed in two ways, a right and a wrong. The rule simply put is: keep the end that comes up under (from around the other in tying the knot) always the same side. If it comes up in front of the other end, keep it in front of the other end in completing the knot. If it comes up behind, keep it behind, and you cannot help making a reef-knot; all that remains is to pull it tight. I may add that sailors loosen a reef-knot by pulling one or other of the ends towards the knot. This is invariably done to a certain extent in lifting the two ends for the purpose of cutting them short. The only surgical work that, as far as I know, mentions the reef-knot is Druitt's Surgeon's Vade-Mecum, ninth edition, page 135. Here the knot is figured, but not described, and wrongly called a double reef-knot.

Yours obediently,
E. J. BARTRUM, Resident Medical Officer.

St. Olave's Union Infirmary, Lower-road, Rotherhithe,
Jan. 8th, 1877.

J. G.—Medicine: Aitken's or Roberts's book. Physiology: Carpenter or Kirkes. Hygiene: Parkes. Chemistry: Ralfe, Roscoe.

Veritas.—There would be nothing whatever discreditable in it.

GASTROTOMY.

To the Editor of THE LANCET.

SIR,—With reference to the statement made in your issue of the 13th inst., that until M. Verneuil's case there had been no recovery after gastrotomy, I beg to state that in THE LANCET of May 15th, 1875, there is recorded a case in which gastrotomy was performed by Mr. Sydney Jones, where the patient quite recovered so far as the operation is concerned. The patient was up and about, smoking and enjoying his food, when unfortunately he contracted a sharp attack of bronchitis, and died on the forty-first day after the operation.

Yours obediently,
St. Thomas's Hospital, Jan. 1877. SAMUEL OSBORN, F.R.C.S.

PROFESSOR DONDERS IN ROME.

OUR Roman correspondent writes:—The illustrious physiologist and ophthalmic surgeon of Utrecht, who has been some days a sojourner in the Eternal City, visited, in company with his distinguished colleague, Professor Koster, the "clinica oculistica" of the University in the wards of the San Giacomo Hospital. Professor Businelli, who holds the chair of ophthalmic surgery in Rome, showed his guests the more interesting cases, and explained to them in the German language the methods he employed in their cure. Professor Donders expressed himself greatly pleased with the skill and success displayed in the treatment of cataract, and also with the operation by which Professor Businelli had replaced the palpebra superior destroyed by cancer—taking the skin from the forehead, and transplanting it by a new method to the position of the deficient palpebra. The two Dutch professors entered into discussion with Professor Businelli and Professor Flarer, of the University of Pavia, who was also present, on some of the more recent accessions to ophthalmic surgery in system and in practice, and thereafter took their leave, much satisfied with their visit and with their accomplished entertainer, and only regretting that the scientific skill displayed had not better accommodation for its exercise.

A. B.'s proposals are too impracticable for the publication of them to be of any use.

MR. COOKE'S DISSECTING ROOMS.

To the Editor of THE LANCET.

SIR,—Would you kindly do me the favour of inserting the following letter in your next issue, and further allow me to make two important quotations and add two remarks.

1. A nuisance was defined "*anything annoying*," "*affecting the enjoyment of others*," "*offensive to the general idea of the public*" (Mr. Besley, the counsel for the prosecution); "*offensive to the senses, but not necessarily detrimental to health*" (Sir Thomas Gabriel, the magistrate).

2. My rooms were screened from the gaze of all, except trespassers on my roof, the staircase of my floor leading to no other rooms but mine, and therefore strictly private; well ventilated by a "strong up-current," and "there was nothing to find fault with" (Dr. Sedgwick Saunders, Medical Officer of Health for the City of London).

3. By sections 1, 12, 6, 3, and 2 of the Anatomy Act (2 and 3 William IV., cap. 75), the licence to practise anatomy is personal; the choice of the site rests with the licensee, who is simply to give one week's notice thereof to the Home Secretary. The "*inspector of places where anatomy is carried on*" is merely to "visit," "inspect," and "superintend" such places. No blame whatever attaches, therefore, to Mr. Hawkins with regard to the granting of the licence for New Bridge-street.

4. I believe myself justified, however, in feeling aggrieved that Mr. Hawkins did not come to see my premises as soon as dissatisfaction appeared to exist. A word from Mr. Hawkins would probably have dispelled the unenlightened prejudices by which I was assailed. Instead of that, Mr. Hawkins, without taking the trouble to acquire any personal knowledge of the facts, suddenly ordered me to remove a body (the only one I had), which was in a perfect state of preservation, and which he had previously authorised me to keep if necessary the full period of six months, instituted by order of Mr. Home-Secretary Bruce.

This arbitrary decision appears to have caused the ruin of my school; it took out of my hands the only absolute proof that my school had been carefully conducted. It further drove my friends to the stratagem of the empty coffin, about which you have doubtless heard. My friends thoroughly believed, as did also the City sanitary authorities, that all that the complainants had smelt was the smell of carbolic acid; and this turned out to be the case, since, on seeing an empty coffin brought in, and believing that there was a body in it, they again said "they perceived the smell as before."

I beg, Sir, on account of the painful and most serious circumstances in which I had been placed, to crave indulgence for anything that was objectionable in this empty coffin stratagem, and also, for the future, to solicit the protection which would I believe certainly result from more frequent visits of the Government inspector.

I am, Sir, your obedient servant,

January, 1877. THOMAS COOKE, F.R.C.S.

L.R.C.P., M.R.C.S.—1. Not likely to shorten life.—2. He can only be removed by the action of the guardians.

Mr. Fry.—The gentleman had better write himself.

PROFESSIONAL REMUNERATION.

To the Editor of THE LANCET.

SIR,—Two matters are noticed in the last LANCET which have interested me for some years past—viz., the yearly payment of medical men, and the medical man in Court. Of the former I can say that I have always refused such a mode of payment, from the feeling that it acts unfavourably, both to patients and doctor, in the following way: The medical man under this kind of payment is sent for to a case which he does not consider urgent, and therefore calls only every two or three days; the friends, on the other hand, think the matter serious, and naturally say, "If Mr. So-and-so was paid for each visit, he would call every day," and so they are dissatisfied. On the other hand, patients are sometimes very exacting, and, having no extra payment to make, send for the doctor, perhaps in the middle of the night, and he says, "if they had to pay for each visit, they would send at more convenient times, and not for such trivial cases," and so he is dissatisfied.

On the other subject I have for some years advocated among my friends, and whenever the subject has arisen, the plan that in all cases of lunacy, injuries from railway or other accidents, and in many other civil cases, a physician or surgeon should be appointed and *paid* by the Court to examine the case, with the power to call in consultation the medical man who has been watching the case for some time. The money, of course, may be repaid with the costs by the losing party. This would, I think, avoid the present plan of pitting professional men against each other, and therefore save the scandal of having opinions, diametrically opposed to each other, given by medical men, retained by plaintiff or defendant, and where the opinion, I am sorry to say, generally seems to follow the fee.

I am, Sir, yours truly,

January, 1877. F.R.C.S.

A Medical Student.—1. The number of medical students registered annually in England at the Medical Council Office averages over 600.—2. The General Medical Council instituted such registration as far back as the year 1865.—3. We cordially agree with our correspondent that for the Royal College of Surgeons and the Society of Apothecaries still to maintain an independent register of their own (the only two corporate bodies who do) is not only vexatious to the medical student at the commencement of his career, but, what is worse to him, a serious loss of time.—4. The Royal College of Physicians of London at once gave up the registration of medical students when the General Medical Council undertook the same.

Mr. S. O'Sullivan.—Mr. Erichsen's book is an excellent one.

THE WORK OF THE MEDICAL DEFENCE ASSOCIATION.

To the Editor of THE LANCET.

SIR,—In the present age it is almost a good thing to be a sick pauper; for the Local Government Board, in its paternal care, not only insists that the sick poor shall have the services of a doubly qualified practitioner, but also expects the doubly qualified medical man who has undertaken the contract to attend its patients himself. You have pointed out the evils that may result from a too strict observance of the exact letter of the law; but as long as it is law we must observe it, or throw up our appointments. The general public has not the same protection, though it was intended that only licensed practitioners should have the power of visiting and prescribing. We find that men in general practice who have too much to do *depute* a great portion of their work to unqualified assistants, some of whom have partially finished their medical studies, and some of whom have never undergone any medical training. You have often in your columns ventilated this subject, and published letters from correspondents, complaining of this abuse; but, through the apathy of those interested, your words have not borne such good fruit as I might expect.

The Medical Defence Association has now started in vindication of medical laws, and the Secretary deserves our best thanks for the amount of labour and time he has devoted to this object; but his work would be very much extended if it was also directed to the suppression of quackery within our own profession. It would be puerile to waste your valuable space in giving all the reasons against unqualified assistants, or to show their illegal position. It would be more interesting to furnish a list of the number employed in different towns, and I furnish my quota towards this object.

1st. A. B., F.R.C.S., consulting surgeon, infirmary. Unqualified assistant, never at a school of medicine.

2nd. C. D., M.R.C.S., surgeon, infirmary. Unqualified assistant, partially educated.

3rd. E. F., M.R.C.S., &c., surgeon, infirmary. Unqualified assistant.

4th. G. H., L.R.C.P. Unqualified assistant.

5th. I. J., M.R.C.S. Unqualified assistant.

6th. K. L., M.R.C.S. Unqualified assistant.

7th. M. N., M.R.C.S. Two unqualified assistants.

All these assistants visit, prescribe, and attend midwifery; some drive in carriages or ride. Do they not render themselves liable to prosecution by so doing? It certainly seems unfair to prosecute John Smith with his bogus diploma, and to allow within our own ranks such wholesale violation of our own laws.

Yours faithfully,

Jan. 13th, 1877. FIAT JUSTITIA.

To the Editor of THE LANCET.

SIR,—In your article on "Poor-law Medical Officers and their Deputies," you propose to ask Mr. Wodehouse "in how many unions throughout the kingdom are not the entire medical duties performed by the deputy"? I would suggest, as a second question, in how many unions throughout the kingdom are not *almost* the entire duties performed by an unqualified assistant? In my own knowledge many cases have occurred, and now exist, where such is the practice, and no notice of the matter is taken either by the guardians or the Local Government Board.

Yours &c.,

Jan. 18th, 1877. COLEBROOK.

Dr. Macfie Campbell is anxious to find out the present address of Dr. A. Fournier, of Paris.

SUBCUTANEOUS INJECTION OF QUININE.

To the Editor of THE LANCET.

SIR,—I have lately had under my care several cases of malarial fevers, remittent and intermittent, and finding in many instances that the stomach cannot bear repeated doses of quinine, I therefore use a solution of quinine, prepared by an eminent London firm of chemists, hypodermically, with the desired effect of stopping the paroxysm of fever; but the remedy was almost as bad as the disease, as, at each spot where the syringe had been used, sores with a large areola of inflammation made their appearance. Not only was the superficial skin involved, but on the scabs which had formed on the seats of puncture being removed, a deep depression was found. These sores were very painful, and caused great inconvenience, and I should be glad to know if I can obtain a solution of quinine the effects of which on the skin will be nil or nearly so. I find that my patients no longer care to submit to this form of treatment, and indeed I have myself, since seeing the effects, not been over-anxious to continue it.

I am, Sir, yours obediently,

Orange-walk, Jan. 1877. W. A. MAY, M.D., &c.

*** Our correspondent will find the subject of his communication treated of in our numbers of July 8th and 22nd of last year. Mr. R. S. Dawson, in his letter in the number of the former date, insists on the necessity of the solvend being in a perfect state of solution. Surgeon-Major A. D. Campbell recommends the "neutral (soluble) sulphate, which does not require acid for solution." He considers the following precautions imperative:—"Have the solution carefully filtered; have the syringe perfectly clean; be certain that the needle is well under the skin into the loose cellular tissue; after withdrawing the needle, knead the parts most carefully, so that the fluid is thoroughly dispersed through the cellular tissue. A syringe, with a simple sliding piston, without screw action, and containing just forty minims, is the most convenient."—ED. L.

BEST COPY AVAILABLE

AMPUTATIONS ONE HUNDRED YEARS AGO.

AT a recent meeting of the New York Academy of Medicine, Dr. Stephen Smith read a paper on the Treatment of Amputations practised by Allanson a hundred years ago, a *résumé* of which appeared in the *New York Medical Journal*. Dr. Smith pointed out that the success which attended Allanson's method of treatment has not been excelled, and seldom equalled, since. Previous to the time of Allanson, the ordinary mode of amputation was to make a cutaneous incision, retract the flap, and make a section of the muscles above. The operation was then finished by sawing off the bone above the cut muscles. Allanson's modification was to make one single oblique sweep of the knife, retract and saw off the bone, draw out each artery, tie, and sponge the surface with warm water. Dr. Smith said that Allanson's procedure was essentially that which was known and practised under the name of the circular flap, yet no such results have been obtained as were recorded by Allanson—thirty-five successful consecutive amputations.

A Student.—Any of the ordinary text-books.

TRACHEOTOMY TUBES.

To the Editor of THE LANCET.

SIR,—Kindly allow me to occupy a small space in your most valuable columns in reply to Mr. Pedley's letter, on Rubber Tracheotomy Tubes, in your impression of this day's date. Many of your readers may conclude from the opening paragraph in that letter that the number of serious accidents referred to rubber, and not to silver tubes, whilst the case reported by Mr. Pedley is the first in which a rubber tube has broken. He states that rubber will not last for years. I certainly do not expect these tubes to do so; but, on the other hand, for the price of one silver tube your patient may procure several rubber ones. At present it is not known how long these tubes should last. I know of one case in which the tube was worn for six months, and was then apparently good for another six months. This the patient declined to test, having recovered. As to the case reported by Mr. Pedley, has this patient tampered with the tube at all? He had for years been in the habit of pawning his silver one for days at a time for the purpose of drink. At last he is given one that pawnbrokers wont touch, and just before Christmas! Contrary to Mr. Pedley's idea, the advantages of this tube are found more marked in short cases than in long, in that ulceration chiefly occurs shortly after the operation. For some time past I have been trying a suitable cloth with the rubber. The metal-covered tube suggested by Mr. Pedley I certainly should be very sorry to have anything to do with, and very much fear that should they ever be made and used, the number of accidents occurring from the hard rubber breaking away from the metal would be far greater and more serious than those of any other tube. The platinum tube suggested has been made for years.

Yours respectfully,

St. Thomas's-street, Borough, Jan. 20th, 1877. J. MILLIKIN.

SKILLED NURSES.

To the Editor of THE LANCET.

SIR,—Without presuming to enter into the question of how far "skilled nurses" may or may not be entrusted with the administration of duly labeled medicines or with permissory directions, will you allow me to remind your readers that the three latest cases of poisoning by misadventure which have occurred in hospitals, though they may certainly be ranked amongst the "contingencies apparently inseparable from feminine folly or weakness," are not attributable in any way to presumption on the part of "skilled" nurses. In the case which occurred at the Children's Hospital at Liverpool, the poison was administered by an untrained nurse of a wenteen, who could neither read nor write. In the latest case, at the Hospital for Women, the opium pills were given by a woman who could neither read nor write; whilst in the lamentable accident which happened at the Small-pox Hospital, the person who poured out the fatal dose was a sister belonging to a society, of the members of which it must be said that, undoubtedly noble and devoted as they are, they cannot be reckoned as "skilled nurses" in the ordinary acceptation of the term.

I remain, Sir, your obedient servant,

January, 1877. A TRAINED HOSPITAL NURSE.

THE VACCINE LYMPH FAMINE.

To the Editor of THE LANCET.

SIR,—My letter in your last issue has brought so many applications for lymph that my small supply is exhausted. I have sent vaccine to twenty practitioners in London and the neighbourhood during the last two days. Those who have not received any answer from me must please understand that their requests could not be complied with. If country vaccinators, willing to help in the emergency, would send their names and addresses to you for publication, it would assist materially to meet the present dearth of lymph; or, as it involves no little trouble to answer applications, I shall be happy to undertake to distribute vaccine lymph to any amount that may be entrusted to me by public vaccinators, to whom I thus appeal to assist in the cause.

Yours faithfully,

Kibworth, Leicester, Jan. 1877. THOMAS MACAULAY.

To the Editor of THE LANCET.

SIR,—In common with many practitioners, I thank you for directing attention to the scarcity of lymph, and bringing out the real explanation of it. A few days ago I sent to the Board a very civil request for as much as it could spare me, a general practitioner in London. With noble generosity it sent me one tube! The whole arrangements for meeting the small-pox have more the appearance of a farce than of a serious provision; but the result is a tragedy of very grave significance to those who are behind the scenes.

Yours &c.,

Jan. 1877. M.D.

To the Editor of THE LANCET.

SIR,—Cannot the Local Government Board extend their arrangements with the public vaccinators and others to supply that department with lymph, from whence it should be obtained by all qualified practitioners (whether by payment or otherwise). It appears to me that this is the only means whereby the supply of lymph can be increased.

Your obedient servant,

Worcester, Jan. 19th, 1877. W. WOODWARD, M.D.

Constant Current, (Newcastle.)—The little work of Professor Zech, entitled "Die Physik in der Electro-Therapie" (Tübingen, Laupp), is of great practical use, not only for the physicians who avail themselves of electric apparatus in treatment, but also for the daily-increasing number of patients who, under medical sanction, practise the same therapeutic means. Electro-therapy is still an empirical branch of the healing art, and it is all the more necessary that the conditions under which its application is indicated should be intelligibly known. "Constant Current" will thank us for having directed him to Dr. Zech's admirable little work.

Mr. Etherington must consult a medical practitioner.

Amicus.—The card is not in good taste.

Mr. Dalby's paper shall appear next week.

COUNTRY POOR-LAW UNION PRACTICE.

To the Editor of THE LANCET.

SIR,—In the columns of your journal, no doubt, will be inserted an advertisement for medical officer to the Loughborough district of the Stow-on-the-Wold Union and Workhouse. I consider it only fair to those who may think of applying for the vacancy to know the reason why I, who am now the medical officer, am resigning. The district is a very extensive one and scattered, embracing 16,000 acres, bad roads, and very hilly. Many times I have had to hire a horse, not being able to do the work. The workhouse contains 62 inmates, with capacity for more than double that number. On an average for the past three months I have had to pay three visits a week, and daily medicines, and once a week I have to make up my book, which, with going the round of the house, occupies an hour. For this I am paid £15 a year. In consequence of this wretched pay, less than you would give to your parlour-maid, I sent the guardians a letter couched in the following terms.

To the Guardians, Stow-on-the-Wold Union.

Stow-on-the-Wold, Jan. 17th, 1877.

GENTLEMEN,—After due consideration I find it quite impossible for me to continue as medical officer to the Loughborough district and workhouse at my present salary. Upon calculation I find that the working expenses are barely covered by the salaries given, including the extras. For my time and the cost of drugs I am entirely out of pocket. Under these circumstances, and hearing that at your last Board meeting you did not think proper to re-appoint me as medical officer to the rural sanitary district, although when I was elected to the one post I was led to understand the other went with it, I now beg to give you one month's notice that I must resign the Loughborough district and workhouse, unless you will increase my salary to £50 a year for the Loughborough district, and £25 a year for the workhouse, and reappoint me as medical officer of health at my former salary (£15 per annum).

I am, Gentlemen, yours truly,

FRED. E. PEARSE, M.D.,

Medical Officer, Loughborough District and Workhouse.

ANIMAL VACCINATION.

To the Editor of THE LANCET.

SIR,—The Twelfth Report of the Medical Officer of the Privy Council, 1869, contains some very interesting information about animal vaccination; and I think your correspondent, Mr. Benjamin Duke, will, if he obtains a copy of this report, be surprised to find that animal vaccination is not free from serious disadvantages as a source of lymph supply.

Yours truly,

Barnstaple, Jan. 20th, 1877. A. FERNIE.

"CASTOR OIL LOZENGES."

To the Editor of THE LANCET.

SIR,—I have just seen a case of severe mercurial salivation in a young girl, who had ignorantly taken half a dozen aperient lozenges in the course of two days, not suspecting that each lozenge contained three grains of calomel. These lozenges, a sample of which I enclose, are sold all over London by grocers, oilmen, chandlers, and even by surgeons and chemists under the name of "castor oil lozenges, or "aperient lozenges in place o castor oil." They are largely used by pregnant women of the lower classes, who think they are using "an extract of castor oil." They are very commonly in the East-end of London given to children as a pleasant aperient. I believe their consumption is rapidly increasing; and in view of the dangers that must necessarily arise from the wholesale use of mercury by people who are ignorant of its effects, I wish to draw the attention of the profession and the public through your columns to this new source of danger to the health of the people. Will not the Adulteration Act reach those who use the term "castor oil" in connexion with this pernicious confectionery? And I should like to know if nothing can be done to prevent grocers and hucksters from poisoning the public in this manner.

I am, Sir, yours faithfully,

Jan. 19th, 1877. IOTA.

THE USE OF ALCOHOL IN MEDICAL PRACTICE.

To the Editor of THE LANCET.

SIR,—You state in to-day's issue that the mortality would be at once doubled were alcoholic liquors to be withheld in the treatment of severe acute diseases in large towns. Permit me to say, from a not inconsiderable experience in the treatment of the sick poor both in city and country practice, that the very opposite would be the result, and that were alcoholic beverages to be excluded from ordinary practice, the mortality in severe acute diseases would be very much less than under the alcoholic *régime*. In emergencies, in the absence of any other cardiac stimulant, I occasionally administer a few drops of any alcoholic preparation that may be at hand; but I have never even thought of prescribing beers, wines, or spirits, unless in such emergencies, in the most severe and acute forms of disease, and I have yet to learn that my rate of mortality is any greater than that of my neighbours. Alcohol is a powerful drug, and ought to be administered with as great caution as any other poisonous remedy; and it appears to me that the action of the medical staff of the Dorset County Hospital in reducing the cost of intoxicating liquors by £100 in one year, with no detriment to the sick, is a step worthy of the most hearty commendation.

I am, Sir, faithfully yours,

Grove-road, Regent's-park, Jan. 20th, 1877. NORMAN KERR, M.D.

M.R.C.S., (Nottingham.)—A paper on the attachments and relations of the Sterno-cleido-mastoid Muscle was published in the *Centralblatt*, from the pen of W. Krause, a few months ago, and a sketch of the communication appeared in our columns on September 30th of last year, to which our correspondent might refer.

UNSUCCESSFUL VACCINATION AND SMALL-POX.

To the Editor of THE LANCET.

SIR,—Referring to a letter under this heading in your impression of Jan. 6th, it seems to me, from the fact of the infant having had a fatal attack of small-pox after three vaccinations, it could not, from some cause, have really been vaccinated at all. Possibly the vaccine was not good, or the punctures made with the lancet may have bled too freely, and so have, as is too often the case, washed away the lymph. In my own practice I operate upon upwards of 400 infants annually, and during the last ten years I have never had occasion to fill up a form for "unsuccessful vaccination." I preserve my lymph in tubes, and in operating I simply scratch the epidermis from three or four little spots about the size of a split pea, and apply the vaccine to them, thus avoiding any bleeding, and I think if your correspondent in future adopts this simple method he will be more successful.

Yours faithfully,

New Wandsworth, Jan. 1877. JOHN MARCH, M.D.

VACCINATION BY MIDWIVES.

To the Editor of THE LANCET.

SIR,—In the district in which I have lately settled I find that trained midwives are, and have been, in the habit of vaccinating the children, and then directing the parent to a legally qualified practitioner to have the schedule filled up. Would you or any of your Scotch readers kindly inform me whether this practice is legal, and how I ought to act in the circumstances?

Yours &c.,

January, 1877. SCOTUS.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Tuson, London; Mr. J. E. Adams, London; Mr. H. Lee, London; Mr. Smith, London; Mr. Fry, Swansea; Mr. Fernie, Barnstaple; Mr. Leech, Woolpit; Dr. Russell, Glasgow; Mr. Blackett, London; Mr. James, Richmond; Mr. Millikin, London; Mr. German Reed, London; Mr. Cannon, London; Dr. Crookshank, Bosnia; Dr. Goodhart, London; Dr. Woodward, Worcester; Dr. Godfrey, Montreal; Dr. Uleeia, Madrid; Mr. W. D. Jones, Rhianda; Dr. Parsons, Goole; Mr. Williams, Sherborne; Dr. Davidson, Liverpool; Dr. Fox, Tillingham; Mr. Etherington, Staines; Mr. Cane, London; Dr. Braidwood, Birkenhead; Dr. Duke, Clapham; Mr. Norris, South Petherton; Mr. Appleyard, Tasmania; Mr. E. Bellamy, London; Mr. Hope, York, West Australia; Mr. O'Sullivan, Burnley; Mr. Marshall, Nottingham; Mr. Richardson, Rusholme; Dr. Kerr, London; Mr. Hett, Bayswater; Dr. Mannsell, Liverpool; Messrs. Schacht and Towersey, Clifton; Mr. Churchill, Hackney; Mr. S. Osborn, London; Mr. Money, Sheffield; Mr. Pearse, Stow-on-the-Wold; Mr. T. Cooke; Mr. Hemming, Peterborough; Mr. Pope, Tring; Mr. Chamber, Brighton; Mr. Evans, Darlington; Mr. Rimsey, Westerham; Mr. Chater, Ware; Mr. Williams, Richmond; Mr. E. S. Jones; Mr. Martin, Chippenham; Mr. T. Arthy, Carlisle; Mr. Edmondston, Coleford; Dr. Lowndes, Liverpool, Dr. Eager, Woking; Dr. Alexander, Liverpool; Dr. Davies, Maesteg; Mr. Chapman; Mr. Boddy, Holt; Dr. Seatliff, Brighton; Mr. Roberts; Dr. Mackinder, Gainsborough; Dr. M'Clure, Worle; Mr. Macaulay, Kibworth; Mr. Bridge; Mr. Clough; Mr. Gibson; Mr. Seymour; Dr. Jackson; Mr. Hamilton; Dr. Combie, Homerton; Dr. Snell, Sheffield; Dr. Rae; Mr. Faulkner; Mr. Bernays, Chatham; Mr. Wilson, Peterborough; Mr. Reynolds, Manchester; Dr. Holton, Bournemouth; Mr. Tennent, Aikshaw; F.R.C.S.; The Registrar-General of Edinburgh; Vaccinator; A Disputant; Iota; A Trained Hospital Nurse; Colebrook; J. C. W.; An Anxious Mother; Ex-Linesman; Not Pyæmia; Student; L.R.C.P., M.R.C.S.; C. B.; M.D.; J. W. M., Manchester; J. G.; Fair Play; A Lover of Animals; Veritas; W. T., York; L.R.C.P.; Studens; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Roberts, Attercliffe; Dr. Finch, Salisbury; Messrs. A. and C. Black, Edinburgh; Mr. Francis, Sutton; Mr. Little, Jersey; Mr. Gray, Lancaster; Mr. Rose, Stornoway; Mr. Clarke, New York; Mr. Richardson, Anfield; Mr. Brown, Handsworth; Dr. Branson, Sheffield; Mr. Burd; Mr. Searl, Aylesbury; Mr. Paulson; Dr. Hopkins, Bath; Mr. Abbott; Mr. Clayton; Mr. Sharp; Messrs. Jolly and Sons, Norwich; Dr. Wilson, Westall; Mr. Walbank, Neuthead; Mr. Whiffin; Mr. Bust; Dr. Steadman, Godalming; Mr. Dean; A. L., Northampton; Medicus, Hinckley; W. H., New Brompton; J. R., Tooting; X., Peterborough; C. X. T.; Surgeon, Camelford; H. A. C., Bayswater; Surgeon, Birmingham; A. B., Regent's-park; Medicus M. L.; Practitioner; C. H. D., Whittlesea; G. H., Bradford; E. P., Hyde-park; F. G.; Medicus, Grimsby; R. N. O.; B. A., Taunton; G. C., Darlington; Locus, Cobham; Medicus, Chelsea; X. X. Y., Strand; W. B.; F. E.

Western Morning News, East London Observer, Jarrow Guardian, Metropolitan, Solicitors' Journal and Reporter, Richmond and Twickenham Times, Surrey Advertiser, Newcastle Daily Chronicle, Manchester Guardian, Melbourne Mercury, Hampshire Post and Southsea Advertiser, Scotsman, Daily Post, Worcestershire Chronicle, Record, Land and Water, Spectator, Broad Arrow, Whitby Times, Shield, Sunday Times, Wolsham, Leeds Mercury, Pharmaceutical Journal, Horse Chronicle, Medical Record, Exeter and Plymouth Gazette, Pictorial World, United Service Gazette, and *Wrexham Guardian* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, JAN. 25TH, 1877.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall	Remarks at 8 A.M.
Jan. 19	29·80	S.W.	52	54	...	57	45	0·01	Overcast
„ 20	30·31	N.	45	48	...	50	46	...	Foggy
„ 21	30·08	S.	37	38	...	49	34	...	Foggy
„ 22	30·63	S.W.	37	39	...	45	35	...	Foggy
„ 23	30·49	S.	35	37	...	48	33	...	Foggy
„ 24	30·11	WNW	44	45	...	49	34	0·05	Overcast
„ 25	29·82	S.W.	39	40	...	49	39	...	Raining

Medical Diary for the ensuing Week.

Monday, Jan. 29.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. Dowse: "A few Notes on Diphtheritic Paralysis."—Dr. E. Woakes, "On some Sympathetic Ear Symptoms."

Tuesday, Jan. 30.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 3 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Jan. 31.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."

Thursday, Feb. 1.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HARVEIAN SOCIETY.—8 P.M. Mr. Carr Jackson, "On Cases of Stone in the Bladder."—Dr. Fitzpatrick, "On Cases of Abdominal Disease."

Friday, Feb. 2.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."

Saturday, Feb. 3.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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